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A WARNING.

In the High Court of Justice.

CHANCERY DIVISION.

MR. JUSTICE NORTH.

26th October, 1886.

KEATING *v.* POLL.

IT WAS ORDERED:

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains **any substance poisonous to animals or human beings,** or from making any statement to the effect that such Powder is dangerous to animals or human beings.

IT WAS FURTHER ORDERED:

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this action.

In this action the Plaintiff's Manager swore, and his affidavit was in no way disputed, that KEATING'S INSECT DESTROYING POWDER is quite harmless to animals and human beings, and that it does not contain any substance that is poisonous to either.

"Keating's Powder" is a special preparation, different from, and not to be compared with, any so-called Insect Powders which give so much dissatisfaction to customers.

NOTICE.—**Chemists who make statements to customers defamatory of Keating's Insect Powder will be summarily proceeded against.**

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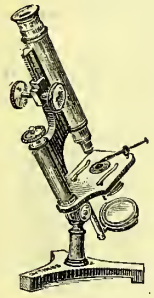
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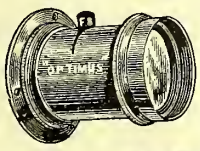


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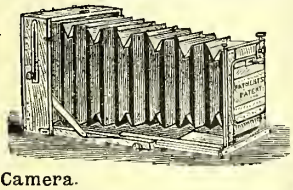
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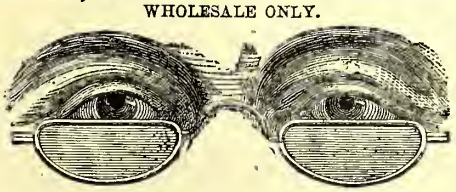
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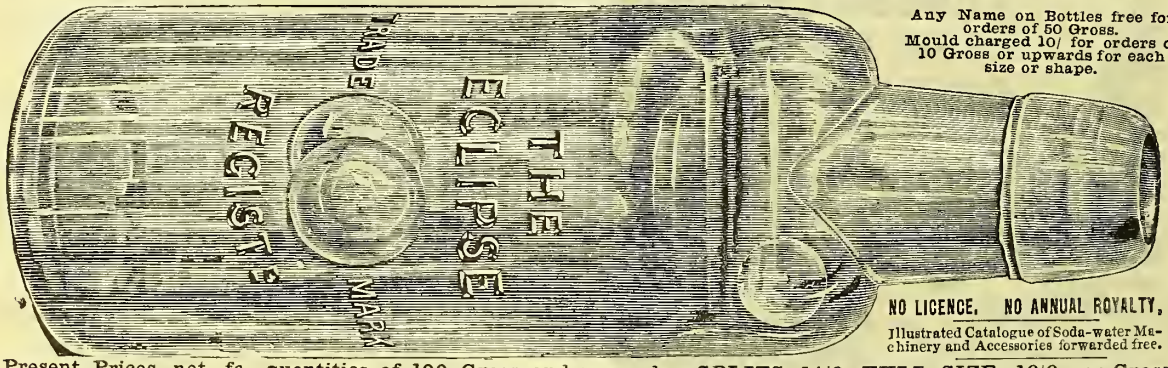
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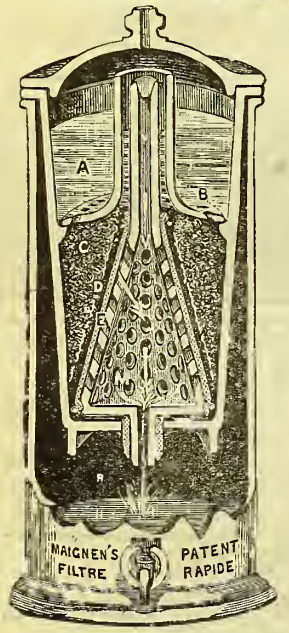
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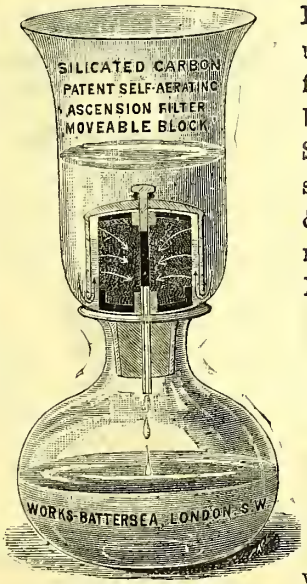


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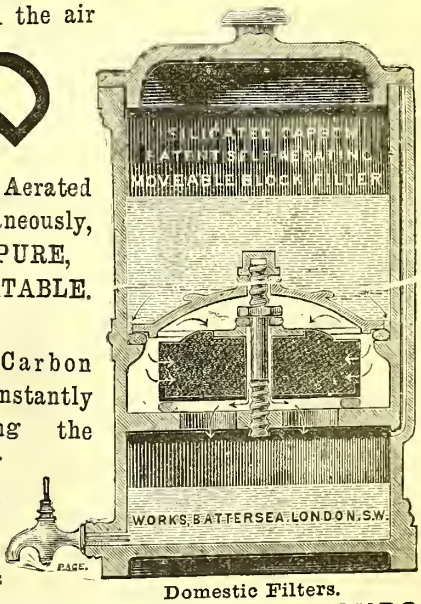


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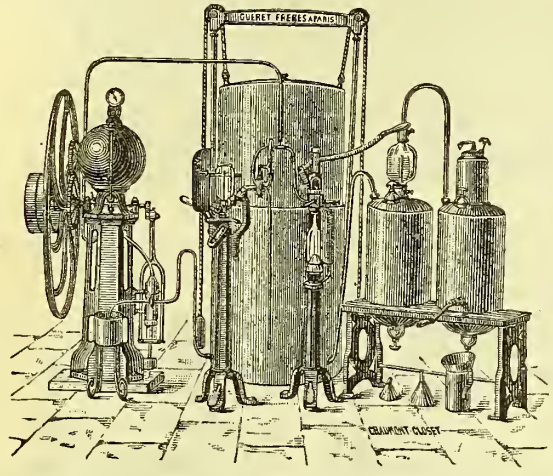
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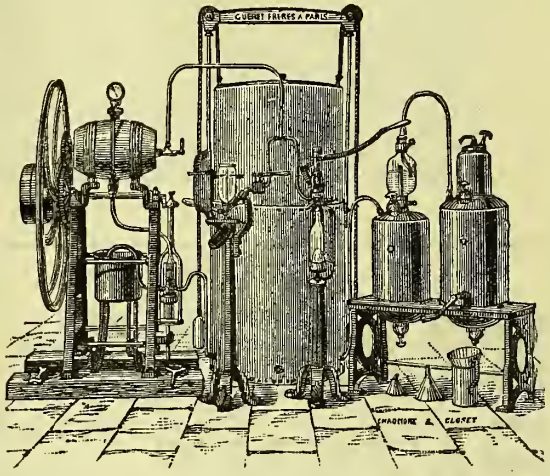
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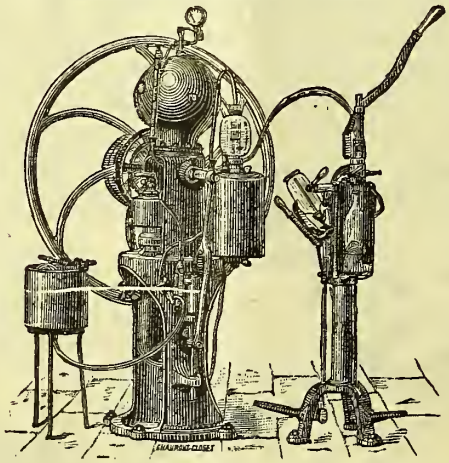
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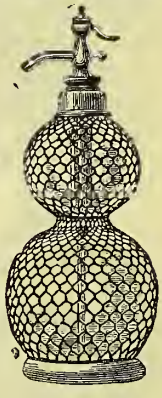
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ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION:
International Food Exhibition, London, October, 1880.

GOLD MEDAL:
Society of Arts, Paris, 1883.

The difference between preparations made from **Hay's Essences** and those made from the numerous **spurious imitations** of them bearing the name of **Soluble Essences** is most marked, and no manufacturer using the latter can compete with one using **Hay's Preparations**, as is universally known.



GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."
The Lancet.

"Mr. Hay has caught the fine aroma of ginger with remarkable success. It is equally sparkling but more refreshing than its rival, the Royal French Beverage."
The Chemist and Druggist.

GINGER ALE.

(Made from Hay's Fortified Essence.)

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger."
The Chemist and Druggist.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of **Transparent Aerated Waters**, and for all Dietetic, Medicinal, and Pharmaceutical purposes. **Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.**

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite **Ginger Aroma** of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. **Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.** Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts **Pungency, Colouring,** great **Brilliancy,** and an unusually **Fine Ginger Flavour and Aroma,** and makes a thoroughly good article. **Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.** Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. **Trade Price, 9s. per lb; 12 lbs. and upwards, 8s. 6d.** Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the **finest flavours,** and imparts with the Ginger a **most exquisite aroma,** making a most delicious and refreshing approximation to Champagne. **Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.** Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. **Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.** "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemists' Journal.*

HAY'S LEMON FLAVOUR.

Perfectly soluble. **Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.** Quantity required, one and a half fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This Essence is made from the **Choicest Hops grown,** and is unrivalled for its peculiarly fine **Hop flavour** and aroma. **Hop Ale** made from this Essence has the full flavour of the **finest Hops,** and is a really **appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.** Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

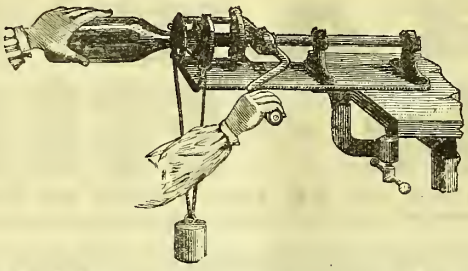
W. HAY, MANUFACTURING CHEMIST, BEVERLEY ROAD, HULL, ENGLAND.

Indentors, to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.



Can be fixed to any Counter.
A single pull of the lever is sufficient to fix the Capsule.

Patentee—**C. MELIN**, 37 Crutched Friars, **LONDON, E.C.**

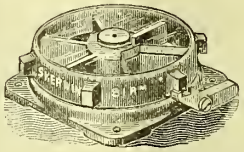
GEO. E. SHERWIN,

"SHERWIN"
MIXER WITH SCREEN



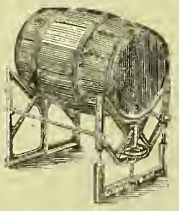
PRICES.
£1/0/0 TO £36/0/0

"SHERWIN"
COIN CHECKER.



PRICE.
15/

"SHERWIN"
CASK TIP STAND.

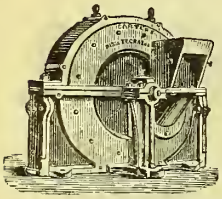


PRICES.
15/ AND 13/

192 ALMEH ST., BIRMINGHAM.

CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.



NEARLY 1,100 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable. Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 MARK LANE, LONDON; and PARIS

Telegraphic Address—Milling London.

12

KINMOND'S
Royal Leamington
APNEUMATIC
TABLE WATERS
Were first supplied to H.M. the Queen in 1856, and to H.R.H. the Prince of Wales in 1862.

KINMOND'S
GINGER ALE,
AND ALL THEIR OTHER WATERS,
Are UNRIVALLED for PURITY and QUALITY.

MANUFACTORY—
LEAMINGTON.

12½ gals. for £1, Cask free.
SPECIAL LINES FOR CASH BUYERS.
TYRER'S
WORCESTER SAUCE,
YORKSHIRE SAUCE,
"BOROUGH" KETCHUP.
BEST VALUE THAT MONEY CAN PURCHASE.

Prices and Samples sent free of all cost by
PETER TYRER, The "Borough" Ketchup & Sauce Maker,
LONDON, S.E.

DE MIEL'S PERFECT HEALTH BISCUITS.

CHEMICAL LABORATORY.
54 Holborn Viaduct, E.C., London, Jan. 7, 1887.

Messrs. THE INTERNATIONAL PATENTS ASSOCIATION.

Dear Sirs,—Having submitted the sample of DE MIEL'S BISCUITS *lately received from you to a careful chemical analysis, we are enabled to report upon them as follows:—*

These Biscuits have been found to contain considerable proportions of nitrogenous matter and of carbo-hydrates; they are also especially rich in salts, which include a large amount of combined phosphoric acid. The flesh-producing, heat-giving *and* bone-forming *constituents of food are thus all represented in these Biscuits.*

A satisfactory feature is absence of excess of moisture, the baking having evidently been conducted with care.

The Biscuits possessed an agreeable flavour; and they can be pronounced to be well made and of good quality.—We remain, faithfully yours,

ARTHUR HILL HASSALL, M.D., Lond.,
Author of "Food: Its Adulterations and the Methods for their Detection."
EDWY GODWIN CLAYTON, F.I.C., F.C.S.

A Liberal Discount to the Trade. Circulars and Particulars on application.

The INTERNATIONAL PATENTS ASSOCIATION,
15 NICHOLAS LANE, LONDON, E.C., [1]
MANUFACTURING CHEMISTS AND SUNDRIESMEN.

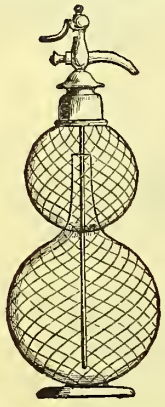
BY ROYAL LETTERS PATENT.
HASSALL & Co.'s PHOSPHO-CITRIC ACID
To Supersede Citric & Tartaric for Aerated Waters. It is recommended by the most eminent Physicians in Great Britain.
THE BEST HOUSES IN THE TRADE HAVE ALREADY ADOPTED IT.
It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £8 per cwt. cheaper than Citric Acid, which mostly contains lead.
WE COMPETE ON QUALITY AND PRICE.
Testimonial from Mr. A. J. MASON, Chemist, of Bexley Heath.
"Having gone carefully into the matter I have no hesitation in saying that the patentees have in no way overstated the merits of their acid. There is no doubt in my mind that Phospho-citric Acid produces a much higher class beverage—giving, as they say, 'greater body'—the one thing needful in this class of goods; also a fruity character and mellowness I have never been able to secure with the ordinary acids. The aroma is also more pronounced. 'Purity' was my great incentive to giving the acid a trial, but I found 50*s.* or 60*s.* (citric at 1*s.* 7*d.* per lb.) per cwt. an economy not often secured under such favourable circumstances."
Why pay 2/6 per lb. for Citric, when a purer and more efficient Acid can be bought at about ⅓ the price?
Beware of Imitations.
Write for Pamphlet and Testimonials. *3-oz. Sample will be sent on receipt of Postage (3 Stamps), or 14 lbs. on approbation.*
HASSALL & CO., Great Northern Goods Depot, King's Cross, LONDON.
Reuter's Cables and Inland Telegrams—"REMPUJARON LONDON."
NEW YORK—F. J. MACNAUGHTAN, 20 CEDAR STREET.

M. A. CRAVEN & SON,
WHOLESALE AND EXPORT CONFECTIONERS,
MAKERS OF
Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,
IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.
EBOR CONFECTIONERY WORKS:
YORK.
Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.
SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges.
ESTABLISHED 1843. PRICE LIST ON APPLICATION.
13

LOOFAHS.

MAY, ROBERTS & CO. beg to inform the Trade that they have received a very fine parcel—from 16 to 18 inches in length—which they will be happy to supply at **4/6 per dozen**, cut or uncut, as required.

9 CLERKENWELL RD., LONDON, E.C.



DOWN AGAIN!!!

FEVRE'S SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Caned, each	7/10	9/2	13/9	23/5
Wired, each	7/5	8/9	13/	22/

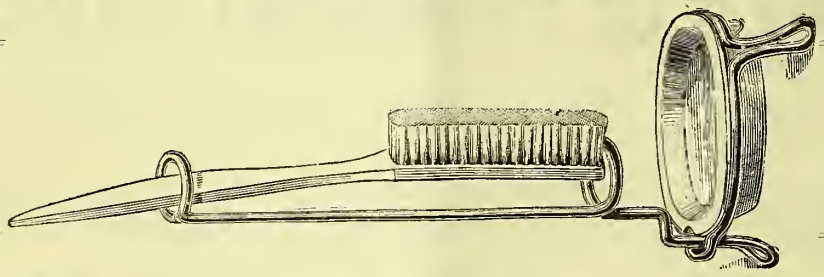
£2 worth or more, 5 per cent. discount.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

THE "1886" TOOTH-BRUSH STAND.

4/3 PER DOZEN.



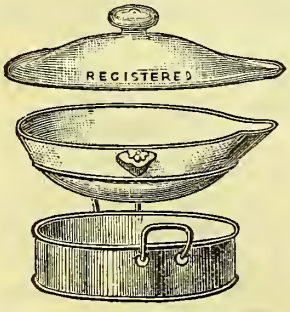
4/3 PER DOZEN.

MAY, ROBERTS & CO, 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

"MAY-ROBERTS" WATER BATH,

REGISTERED.



This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where small quantiti of materials have to be dealt with.

The **old form** of Water Bath necessitates the use of **a second vessel** for pouring the melted **Pomade, Cream**, or other substance into the bottles or jars in which they are sold. In the **"MAY-ROBERTS" Water Bath** the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be **poured** into the bottles or jars **direct from the bowl.** The Bath is also supplied with an earthenware cover.

	1 PINT.	5 PINT.	10 PINT.
Each	3/0	5/6	9/6

MAY, ROBERTS & CO.,

9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

Telephone Number, 1852.

Advertisers' & Buyers' Reference List,

AND INDEX TO ADVERTISEMENTS.

TELEGRAPHIC ADDRESS— CHEMICUS LONDON.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and NOT at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

A1 MENTHOL CONES ..... *Menthol in Variety* 38
ALLEN & HANBURYS
Cod-liver Oil, Malt Extract, Tincturrs, Extracts, &c., Wholesale Druggists COVER
APOLLINARIS CO. ..... *Apollinaris Water* 8, 21
TEXT 686
ASPINALL, ASPINALL & CO. ..... *Enamel* 31
ASSISTANTS WANTED ..... Coloured Supp.
ATKINSON, J., & CO ..... *Perfumery* 25
AYER H. N. ..... *Recamier Preparations* 37
AYRTON & SAUNDERS
Fittings for Feeding Bottles 35

BARBER, G., & CO.
Crimson Marking Ink, Liquid Cochineal 37
BARNETT & FOSTER
Ecli, se Globe Stoppered Bottles 8
BARRETT, R. H. ..... *The Heart Scent Bottle* 28
BECK, A. N. ..... *Hop Bitters* 24
BENTON, CLARKE & CO.
Drug and Spice Merchants 18
BINGHAMTON OIL REFINING CO., *Petrolina* 18
BLYTON, T. BAGE, & CO... *Medicated Lozenges* 18
BOLE HALL MILL CO. ... *Surgical Bandages* 34
BRITISH & COLONIAL AGENCY Coloured Sup.
BROOKE, BOND & CO. ..... *Teas* 35
BROOKS, T. ..... *Recipes* 7
BROMLEY & CO.
Bromo Iodine Mineral Water... TEXT 686
BURROUGH, JAMES ..... *Methylated Spirits* 30
BURROUGHS, WELLCOME & CO.
New Methods for Treatment of Voice and Throat 19
Strophanthus 20
BUSINESSES FOR DISPOSAL ..... Coloured Supp.

CADBURYS BROS. ..... *Cocoa Essence*.. COVER
CARTER, J. HARRISON ..... *Disintegrators* 12
CHISWICK SOAP CO. ..... *Soft Soap* 21
CHURCHILL, J. & A... *Organic Materia Medica of the British Pharmacopœia* 6
CONDY & MITCHELL... *Condy's Powder*.. TEXT 686
COOPER & NEPHEWS
Sheep Dip and Fly Powder 32
CORNER, R. ..... *Devonshire Oils* 35
CRAVEN, M. A., & SON *Confectionery, Lozenges* 13
CROUCH, F. B. ..... *Damiana Wafers* 30

DAY & SONS ..... *Horse and Cattle Medicines* 32
DE PASS, E. A., & CO. ..... *Petrolina* 18
DOBELL, DR. ..... *Books* 6
DRYSDALE, J. W., & CO. ..... *Lro's Compressed Tablets and Dry Extract of Malt* 26
DURRANT & CO. ..... *Orange Wine* 34

ECLIPSE PATENT CHECK TILL CO. 25
EDGELL BROS. ..... *Rectified Pure Spirit* 34
ELLIMAN'S EMBROCATION ..... TEXT 6-6
ESCHMANN BROS. & WALSH
Flexible Catheter 25
EVANS, SONS & CO. ..... *Corn Paint* 7
Insect Powder 32
Capsules and Cigarettes 33
EVANS, LESCHER & WEBB (London)..... 7, 32, 33
EVANS, SONS & MASON, LIM. (Montreal) 7, 32, 33
EXCHANGE COLUMN ..... Coloured Supp.

FLETCHER, FLETCHER & STEVENSON
Pharmaceutical Chemists 5
FOSTER, F. ..... *Valuer* 35

GIBSON, R. ..... *Medicated Lozenges* 7
GLASGOW APOTHECARIES' CO. *Recess Bottles* 27
GOVERNMENT, THE, SANITARY CO.
Disinfectants 30
GREEN, C., & CO. ..... *Pepsin. Porci. Pur.* 35
GRINDLEY & CO. ..... *Petroleum Jelly* 34
GUERET FRERES *Syphons & Soda Water Plant* 10

HARVEY, J. & W., & CO. *Methylid. Spirit Finish* 30
HASSALL & CO. ..... *Phospho-Citric Acid* 13
HAY, W. ..... *Soluble Essences* 10
HEARN, E. A., & CO.
The Watch Smelling Salt Bottle 33
HEARON, SQUIRE & FRANCIS
Pharmaceutical Chemists 20
HERTZ & COLLINGWOOD
Jenscn's Cod Liver Oil 20
HIRST, BROOKE & HIRST
Pharmaceutical Preparations 22
HOOPER & CO. ..... *Carnabyn (Registered) and Sparkling Seltzer* COVER
HOP BITTERS COMPANY, LIM. 25
HORN & SONS ..... *Trade Marki Agents* 34
HOWARDS & SONS
Quinine and Pharmaceutical Chemicals 23
HOMŒOPATHIC HOSPITAL
Hospital and School 6
HUNYADI JANOS ..... *Waters* 8

INGRAM & ROYLE
Æsculan Bitter Water 40. COVER
INTERNATIONAL PATENTS ASSOCIATION
De Miel's Heal h Biscuits 13
ISAACS & CO. 27

JEWSBURY & BROWN ... *Oriental Tooth Paste* 37
JONES, DR. ..... *Dental Surgeon* 34

KEATING, THOMAS ..... *"A Warning"* 3
KEMP & SON ..... Coloured Supplement
KERNICK & SON ..... *Wholesale Druggists* 35
KILNER BROS. *Feeding and Dispensing Bottles* 27
KINMOND & CO.
Aërated Waters, Ginger Ale, &c. 13

LEVERMORE, AUG., & CO.
Pure Precipitated Chalk 34
LLOYD, A. S. ..... *Euxesis* 34
LONDON HOMŒOPATHIC HOSPITAL
Hospital and School 6
LONGMANS, GREEN & CO.
Text Book of Organic Materia Medica 6
LOWE, C. ..... *Liver Mixture* 34
LYNCH & CO. *"L Brand" Dispensing Bottles* COVER

MACNAIR, J. & D., & CO. ..... *Shellac, Gums* 34
MACNAUGHTAN, F. J. ..... *Commission Agency* 7
MAIGNEN FILTRE RAPIDE CO. (LIM.)
Filters—" Anti-Calcaire" Powder 8
MARTINDALE, H. ..... *Nitro Glycerine Tablets* 18
MASON, H. C. ..... *Nun Eau de Cologne* 36
MAW, S., SON & THOMPSON
Plain Covered Pots 28
MAY, ROBERTS & CO.
Loofahs, Tooth Brush Stand 14
MAY & BAKER... *Sublimed Tablet Camphor*... COVER
McFERRAN, J. A. ..... *Compressed Pill Machine* 33
MELIN, C. ..... *New Capsuling Machine* 12
MORPHY, EUGENE ..... *Walnut Pomade* 37

NATIONAL CHEMICAL COMPANY
Chloride of Lime 35
NEWBERY & SON
Warner's Pill Vases at Reduced Prices 15

ORRIDGE & CO. *Transfer Agents* Coloured Suppt.

PATTISON, G. ..... *Bath Gloves* 37
PERKEN, SON & RAYMENT
Photographic Apparatus, &c. 7
PHILLIPS, G., & CO. ..... *Pure Spirits of Wine* 30

RAIT, G. R., F.C.S. ..... *Analytical* 34
RAPHAEL & CO. ..... *Spectacles, &c.* 7
ROBERTSON, J., & CO.... *Pill Coating Machines* 27
ROBINSON, B. ..... *Sherry Wine* 25

SAINSBURY, S. ..... *Lavender Water* 35
SANFORD & SON ..... *Found Dead* 34
SANGER, J., & SONS
Revised Price Current, Benzine Collas 26
SANITAS CO. (LIM.) ..... *Disinfectant*..... TEXT 686
SAUNDERS, J. W. ..... *Private Tutor* 34
SEDDON, J. & T. ..... *Oil Refiners and Importers* 30
SHERWIN, G. E. ... *Cash Stand & Coin Checker* 12
SHIRLEY, ARTHUR W. ..... *A1 Menthol Cones* 38
SILICATED CARBON FILTER CO. ..... *Filters* 9
SILVERLOCK, H. ..... *Chemists' Printing* 6
SLACK & BROWNLOW
Compressed Charcoal Filters 9
SOUTH LONDON SCHOOL 6
SOUTHALL BROS. & BARCLAY
Lime Water Syphon, A 1 Cod Liver Oil 22
STALLMAN & FULTON, N.Y.
Importers and Exporters 7
STEFAN & CO. ..... *Enamelled Letters* 32
STEPHENSON & TRAVIS, *Antiseptic Dressing* 34
STONE & SON ..... *Muricidans* 34
SUTTON, OSCAR & CO. *Tooth Blocks Dentifrice* 25
SYMINGTON, T., & CO. ... *Pure Coffee Essences* 4

TODD, A. M. ..... *Crystal Oil of Peppermint* 34
TOOGOOD, W.
Specialities, Earthenware Covered Pots 28
TOWLE, A. P., & SON
Revised Price List, Chlorodyne 24
TYRER, P. ..... *Borough Ketchup* 13

VACCINE ASSOCIATION, *Pure Vaccine Lymph* 30
VAN ABBOTT & SON ..... *Diabetes Foods* 34
VOGT, G. ..... *Insect Powder* 33

WINKELMANN J. H., & CO.
Proctor's Liquid Glue 30
WINK, J. A., & CO. ... *Morphia and all its Salts* 22
WOODS, M. W. ..... *Areca Tooth Paste* 37
WRIGHT, LAYMAN & UMNEY
Wholesale and Export Druggists... COVER
WYLEYS & CO.
Coated Pills, Pharmaceutical Wholesale Druggists 22

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERATED AND MINERAL WTS

Æsculap
Apollinaris (Hunyadi, Friedrichshall, and Apollinaris)
Barnett and Foster
Bromley and Co. (Woodhead Spa)
Carter, H. W., & Co. (Ginger Ale Essence)
Chemists' Aërated Waters Association
Durrant, Geo. & Co.
Ellis (Ruthin)
Hassall and Co. (Citric Acid, Phospho)
Hay, W. (Hop Ale Essence)
Hunyadi Janos
Ingram and Royle (Mineral and Vichy, Sanerbrunnen, Carlsbad)
Jewsbury and Brown
Kinmond and Co.
Meadowcroft, W.
Mills and Co. (Bonrne)
Taylor, T. and F. J.
Williamson, W. H. (WntrDrnk)
[See GINGER ALE.]

DITTO PLANT

[See SYPHONS and ESSENCES.]

Barnett and Foster
Bratby and Hinchliffe
Bush, W. J., and Co. (Foam Producer, &c.)
Durafort, M.
Favarger, H.
Gueret Frères
Meadowcroft, W.
Tyler, Hayward, and Co.

ACETIC ACID

Dunn and Co.
Hirst, Brooke and Hirst
Morris and Callard (Salts)

ALKALOIDS

Howards and Sons (Cinchona)
Smith, T. and H.

AMMONIA

May and Baker

ANALYSIS

Rait, G.L., F..C.S., &c.
Perken, Son and Rayment (Scientific)
Rothermel, Paul (Vinegar)
Wolters, Otto (Balances)

AGENCIES ABROAD

Cocking (Japan)
Drysdale, J. W., and Co.
Eisner and Mendelson (Philadelphia)
Evans, Sons and Mason (Canada)
Felton (Melbourne)
Fougera (New York)
Hormusjee Ruttonjee (Bmby)
Kempthorne (Nw. Zealand)
MacNaughtan (New York)
Prosser, E., and Co. (Sdny)
Roberts (Paris, &c.)
Rocke (Melbourne)
Sharland & Co. (Auckland N.Z.)
Stallman and Fulton
Symes and Co. (Simla)

APPARATUS

Bracher & Co. (Automatic distilling)
Maud, W. R.
May, Roberts (Water-bath)
Orme (Scientific)

BATH GLOVES

G. Pattinson

BEESWX & HONEY

Bowdlear and Co.
Kemp, W., and Son
Woolley, Sons and Co.

BICARB. SODA

Gaskell, Deacon and Co.
Howards & Sons
May and Baker

BISMUTH PREP.

Hewlett and Sons
Howards and Sons
May and Baker
Sellers, J.

BOOKS

Baily, J.
Lewis, H. K.
Southall Bros. & Barclay

BLACKING

New Military Blacking Company
Jamieson and Co.

BOTANIC BEER

Newball and Mason

BOTTLE CAPS

Hunt, W. F., and Co

BOTTLES

Barrett, R. H.
Barnett and Foster
Bratby and Hinchliffe
Brooks, Peel (Perfumers)
Glasgow Apothecaries' Co.
Hearn, E. A., and Co.
Isaacs and Co.
Kilner Bros.
Lang, Jonas and Jnles
Lynch and Co. ("L" Brand)
Morrison, R., and Co.
Poths
Thompson, Millard and Co. (Feeding)
Toogood

BOXES
Austin and Co. (Cardboard)
Ayrton and Saunders (Willow)
Irvin and Sellers
Metz, Paul (Pine and Willow)
Robinson and Sons (Pill and Insect Powder)

BROMIDIA
Battle and Co.

BRUSHES
Dukas and Co.
Goodall, H. A., and Co. ("Stands")

BUTTER COLOUR, &c.
Bush, W., and Son (Marigoldine)
Tomlinson and Hayward

CAMPHOR
Howards and Sons
Keene and Ashwell (Homœopathic)
May and Baker
Murray, Sir James (Fluid)

CAPSULES
Betts and Co. (Metallic)
Denoual, J. (Medicinal)
Duncan, Flockhart and Co. (Cascara Sagrada)
Hooper, B., and Co.
Melin, C. (Capsuling Machine)
Metz ("Acme" Brand)

CARMINE
Bush, W. J., and Co.
Sellers

CASTOR OIL
Allen and Hanburys

CATALOGUE
Evans, Sons and Co. (Price Current)
Maw, S., Son and Thompson (Price Current)
Newbery and Sons

CEMENT
Foulkes
Kay (Coaguline)
Winklemann and Co. (Liquid Glue)

CHALK PRECIP.
Dunn and Co
Levermore, Aug. and Co.

CHEMICALS
Bernstein Vogt (Fine)
Bramwell, E., and Son
Bush, W., and Co.
Dunn and Co.
Fletcher, Fletcher & Stevenson
Gaskell, Deacon and Co. (Bicarbonate of Soda)
Howards and Sons (Pharmaceutical)
Lindsey, C. R., and Co.
May and Baker
Morris, Callard, and Co.
Petri Bros.
Sumner, R., and Co.
Smith, T. and H.
Typke and King
Walker, Troke and Co.
Wink, J. A., and Co. (Fine)
Zimmermann. A. and M.

CHLORATE OF POTASH
(Compressed Tablets)
Burroughs, Wellcome and Co.
Leo's
Hooper, B., and Co.

CHLORODYNE
Blyton-Bage and Co. (Twemlow's)
Davenport (Browne's)
Towle, A. P.

CHLOROFORM, &c.
Duncan, Flockhart
Macfarlan, J. F.
Petri Bros.
Smith, T. and H.
Wink, J. A., and Co., Lim.
Zimmermann

CITRIC ACID
Hassalls (Phospho)

COCAINE HYDROCHLOR.
Howards and Sons

COCOA & CHOCLTE
Cadbury
Fry (Malted)
Savory and Moore (Cocoa and Milk)

COD-LIVER OIL
Allen and Hanburys
Burroughs, Wellcome
Burgoyne (Peptelelne)
Hertz & Collingwood
Lofoden Cod Liver Oil Co.
Smith, T. J.
Southall Bros. and Barclay
Woolley, Sons and Co.

COFFEE
Symington and Co. (Coffee Essence)

COIN TILLS
Sherwin (Checker)
The Eclipse Patent Check Till Co.

COLLAPSIBLE TUBES
Brooks, H., Peel and Co.

COMBS
Goodall, H. A., and Co

CMPRSSD MDCNS
Allen and Hanbury's
Burroughs, Wellcome and Co
Hooper, B., and Co.
Leo's Tablets
Newbery and Sons

CORN CURES
Robinson, B.
Young's

COTTON WOOL
Haynes G., and Co.
Robinson and Sons (Absorbent)
Sanger, J., and Sons

DENTIFRICES
Jewsbury and Brown
Newbery and Sons
Sutton, O., and Co.
Thompson and Capper
Woods, W. (Areca Nut)

DENTISTRY
Jones, Dr. C. H. (Mechanical)

DISINFECTANTS
Condy and Mitchell
Government Sanitary Co.
Hamilton and Co.
National Chemical Co.
Sanitas
Steele & Co. (Chloride of Lime)
The American and Continental Sanitas Co. (Lim.)

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Spratts (Patent)

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Ayrton and Saunders
Barclay and Sons
Bourne, Johnson and Latimer
Evans, Lescher and Webb (Hawley's Counter Adjuncts)
Evans, Sons (Savars)
Lynch and Co.
Marriott and Co. ("Lily" Baby Comforter)
Maud, W. R.
Maw, S., Son and Thompson
May, Roberts and Co.
Newbery, F., and Sons
Pattison, Geo.
Sanger and Sons
Savars
Schutze and Co.
Thompson, Millard
Toogood

DRUMS, CANS, &c.
Noakes and Co.

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Dales, J. T.,
Jamieson and Co.
New Military Blacking Co,

DYES
Ayrton and Saunders

EAU DE COLOGNE
Farina, J. M. (Gegenüber)
Mason, H. C. (Nuu)

EFFERVESCENT SALINE
Allen and Hanbury's

ELECTRIC APPAR
Darton, F., and Co.
Orme and Co.
Colthurst & Harding (Electric Light Oil)

EMBROCATION
Elliman, Sons and Co.

ENEMAS
Ingram and Son
Lynch and Co.
Sanger and Son

ENGRAVERS
Barker, W., and Son

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Bratby and Hinchliffe
Burgoyne, Burbidges and Co.
Bush, W. J., and Co.
Carter, H. W., and Co
Hay's Soluble Lemon, &c.
May and Baker
Meadowcroft, W.
Stevenson and Howell
Typke and King
Vogt, G.
Woolley, Sons and Co.

ESSENTIAL OILS
Bernstein and Voght
Bush, W. J. (Lemons, &c.)
Cocking (Japan Peppermt)
Hay, W.
Lambert, S. and Co.
May and Baker
Meadowcroft, W.
Rocke, Tompsitt (Eucalyptus)
Sumner and Co.
Stallman and Fulton
Stevenson and Howell
Symes (Ol. Lavander)
Vogt, G.
Warrick Brothers
Wright, Layman and Umney

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Duncan, Flockhart and Co. (Chloric)
Howards and Son
May and Baker
Robbins

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Brand and Co.
Burgoyne, Burbidges and Co. (Dr. Koch's)
Coleman & Co.
Liebig Co.
Mason, Geo., and Co. (Lim.)
Poths (Leube Rosenthal)

EXTRACTS, FLUID
Barber, G., and Co.
Burgoyne, Burbidges
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Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Potter and Clarke

FACE POWDERS
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Foulkes

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Bourne, Johnson and Latimer
Hearn, E. A., and Co. (late Hearn, Riddell and Co.)
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Lang, J and J.
Maw, Son and Thomson
May Roberts and Co.
Savars
Thompson, Millard
Toogood, W.

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Doulton and Co.
Dunlop, Mitchell and Co.
Maignen (Filtre Rapide)
Mawson Swan, and Weddell
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Silicated Crbn Fltr Co.

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Ford, Shapland and Co.

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Mason, Geo., and Co. (Lim.)
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Savory and Moore
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Sumner, R., and Co. (Angels')
Van Abbott (Diabetic)

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Chubb, J., and Co.

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Harston and Co.
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Meadowcroft, W. (Essence of)
Mills, R. M.
Sumner, R., and Co. (Essnce)

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Fink
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Price's Candle Co.

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Bush, W., and Co.
Evans, Sons
Wright, Layman and Umney

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Fink (Arabic, &c.)

GUTTAPERCHA
Duncan, Flockhart
Stevens, P. A. (White)

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Bayley and Co.

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Bates, T. W. (Frizzetta)
Capper, W. B. (Crinidone)
Chesebrough Mnfg. Co.
Morphy, E. (Walnut Pomade)
Towle Toilet Cream (Thornton's)

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New Military Blacking Co.

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Gruner, Carl (German)
Keene and Ashwell
Leath and Ross
Thompson and Capper

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Hay, W.

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London Homœopathic

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Fellows
Fletcher, Fletcher & Stevenson
Typke and King
Yeatman, F. J.

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Evans, Sons and Co.
Maw, S., Son and Thompson
Spirone, The, Co., Lim.
Toogood, W.

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Bewley and Draper
Duncan, Flockhart

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Sandford
Steiner and Co.
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Tyrer, P.

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LEECHES
Fitch and Nottingham
Potter and Clarke

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Maud (Compound)

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Mumford

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Newsome (Surgeons')
Robinson and Sons
Seabury and Johnson
Westhorp's (Marine)

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Maw, S., Son and Thompson

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Mason, Geo., and Co. (Meat)
Randall and Son
Warrick Brothers

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Sherwin
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Dinneford (Fluid)
Henry, T. and H. (Calcined)
Murray, Sir James (Fluid)

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Burroughs, Wellcome and Co. (Malt Extract "Kepler")
Drysdale and Co. (Dry)
Poths (Dr. Linck's)

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Christian, J.
Hooper, W., and Co.
Murphy, J.

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Day and Sons

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Boehm, J. (Charms)
Christy, J, & Co. (Inhaler)
Cocking and Co.
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Hockin Wilson and Co.
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Newbery and Son
Shirley
Spies Bros.
Symes and Co.
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Wand, S.

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Howards and Sons
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Gibb, Smith and Co.
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Phillips, G., and Co.
Warren, A. and J.

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Perken, Son and Rayment

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Smith, T. and H.
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Symes and Co. (Thibet)

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Elvin Bros.
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Grindley (Petroleum Jelly)
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Brin's Oxygen Co. (Lim.)

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Kuhn, B.

PARALDEHYDE
Zimmermann, A. and M.

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Barclay and Sons (General)
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Beecham (Pills)
Bennette (Manna Cake)
British College (Morrison's)
Burgess, E. (Lion Ointment)
Crouch, F. B. (Wafers)
Edwards and Son
Evans, Lescher (Hawley's Counter Adjuncts, Coated Pills, &c.)
Fenning's Powders)
George and Welch (Liver)
Hirst, Brooke, and Hirst
Holloway (Pills and Oint.)
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Horsford (Acid Phosphate)
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Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Lowe, C. (Liver Mixture)
Lynch and Co.
Maud, W, and R. (Worm Cakes)
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Munday, J. (Injection Day)
Newbery and Sons
Pocock and Co. (Foreign)
Raimes (Composition Ess.)
Richards, J. M. (American, &c.)
Roberts (Foreign)
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Savars
St. Dalmas (Bronchial, &c.)
Sumner R., and Co. (Angels Food)
Swift Specific Co., The
Thompson, Millard and Co.
Towle, E. (Penny Royal)

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[See EAU DE COLOGNE.]
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Ayer, H. H.
Barclay and Sons
Bayley and Co.
Boehm Gustav (Various)
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Crown Perfumery Co.
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Ewen (Soaps)
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Newbery and Sons
Osborne, Bauer and Cheeseman
Patey and Co.
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Sanger and Sons
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Woolley, Sons and Co. (Powder)
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Gillott

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Fletcher, Fletcher and Stevenson
Green, C., and Co.
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Newbery (Ingluvin)
Savory and Moore (Peptonised Milk)
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Zimmermann

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Robbins

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Fletcher (Lqrs. for Syrups)
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Hooper, B., and Co.
Howards and Sons
Kay Bros.
Keith (Conc. Tinctnres)
Martindale (Nitroglycerine)
Sellers, J.
Southall Bros.
Sumner, R., & Co.
Symes and Co.
Walker, Troke
Wink, J. A., and Co.
Woolley, Sons
Wyleys (Various)

PHOTOGRAPHIC
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Perken, Son and Rayment

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Pindar, J. W.
Robertson, J., and Co. (Coating)

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Hooper, Dr.
McKesson and Robbins Ovoid-capsuled)
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Newbery
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Wyleys and Co.

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St. Dalmas, A. De
Seabury and Johnson
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Lazenby (Harvey's)
Tyrer, P.

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The School of Pharmacy
Tully, J.
Westminster College

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Waterston and Sons

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Hovenden (Euxesis)
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Grindley and Co.

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Stefan, T., and Co.
Yates, W. S.

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Evans, Sons and Mason
Hearon, Squire and Francis
Hewlett and Son
Hirst, Brooke and Hirst
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Pocock & Co. (Foreign)
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Southall Bros. and Barclay
Sumner, R., and Co.
Thompson, Millard and Co.
Walker, Troke and Co.
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Wright, Layman and Umney
Wyleys and Co.

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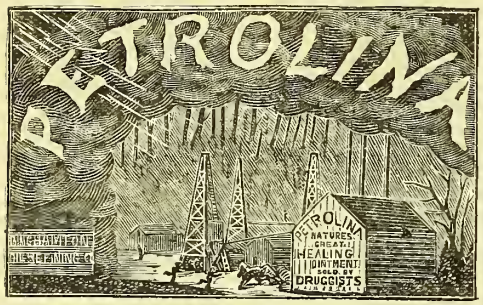
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By authority of the Medical Council, the compilers of the British Pharmacopœia have adopted and made OFFICIAL Nitroglycerine Tablets as manufactured by me during the last eight years.

The Nitroglycerine is in a perfectly fixed solution in the Chocolate. The Tablets weigh ONLY 2½ grains each, an ounce containing about 170 doses. They are sold at the following prices to the trade, subject:—

In Boxes, Retail ... ... 2s. 6d. and 4s. 6d. each.
„ Trade ... ... 24s. and 43s. per doz.

FOR HOSPITALS AND DISPENSING:

In Bottles, Retail, 1-oz., 6s. 6d.; 2-oz., 10s.; 4-oz., 16s.; 8-oz., 27s.; and 16-oz., 48s. each.
„ Trade, „ 60s.; „ 96s.; „ 156s.; „ 264s.; „ „ 480s. per doz.

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The Compressed Chlorate of Potash Tablets are snowy white, lenticular, and perfectly pure. There is no sugar, paste, or other admixture in them to interfere with the local or general effects of the medicine. By using them the drug is effectually brought into contact with the oral mucous surfaces, and its specific action made certain. (Cohen). "Topically it acts as a stimulant to mucous membranes" (James). It is "chiefly used to bring about a more healthy condition of the mucous membrane of the mouth and throat, and acts like a charm in follicular stomatitis" (Wood). In spongy, bleeding gums, and ulceration of the gums and adjacent surface, "it cures the dirty-looking ulceration, and heals it in a day or two." "Chlorate of Potash exercises great influence on mucous membrane," says Prosser James, "and has been the means of saving many a life." These Tablets are "infinitely superior to lozenges" (Lennox Brown).

Dr. Brunton says—"Chlorate of Potash is chiefly used to bring about a more healthy condition of the mucous membrane, and to cause ulceration present there to heal up. It is used in stomatitis occurring during nursing, on whatever this depends, in aphthæ, in cancrum oris. It is used in follicular pharyngitis, and has been employed internally and as a local application in cases of croup, diphtheria, and spasm of the larynx."

COMPRESSED CHLORATE OF POTASH AND BORAX TABLETS.

Sir Thos. Watson recommended Borax in the apthous ulceration which attends the advanced stages of phthisis, and Brunton found it serviceable in cracked tongue. Waring speaks of it as very effectual for hoarseness and clergyman's sore throat, and Ringer advises its use in aphonia from over-use of the voice. Dr. Budd speaks highly of it in diphtheria.

The worth of Chlorate of Potash may be greatly enhanced by the presence of Borax. Borax is proverbially known to quickly relieve hoarseness, irritation of the throat and bronchi, and when taken early to avert a cold. It is considered an excellent antiseptic, correcting perverted oral secretions, cleansing the mouth, and imparting to an offensive breath the wholesomeness of perfect health. It is of the greatest service in "clergyman's sore throat," and proves not only a preventive of diseases of the nares, throat and larynx, but taken a few minutes before speaking or singing clarifies the voice. The British Medical Journal says:—"The Wyeth Tablets are manufactured with the utmost neatness and perfection." An excellent way to employ Borax is in the Compressed Chlorate of Potash and Borax Tablets.

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The Voice Tabloids contain Cocaine, Chlorate of Potash and Borax. Cocaine has been largely employed by laryngologists, and is highly valued in many throat affections. It allays irritability of the throat, and tones the mucous membrane of the vocal cords and the throat generally. "It relieves also the dysphagia of phthisical laryngitis" (Phillips). Fuller, clearer, richer vocal tones follow at once upon its use. In "clergyman's sore throat" its good effect is immediate and pronounced. The best form in which to employ Cocaine for the voice and throat is in the Voice Tabloids with Chlorate of Potash and Borax.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

STROPHANTHUS TINCTURE.

[*Reprinted from the* LANCET, *March 26th*, 1887.]

FEW drugs have sprung more rapidly into favour than the African arrow-poison Strophanthus. It was introduced to the notice of the profession by the distinguished pharmacologist Dr. T. R. Fraser, Professor of Materia Medica in the University of Edinburgh, who for fifteen years laboriously investigated its action both on man and the lower animals. It is now recognised as being not only a powerful heart tonic, but a most active diuretic. For a long time a difficulty was experienced in obtaining a thoroughly trustworthy preparation, but Messrs. Burroughs, Wellcome & Co. have recently made a 1 in 20 alcoholic solution which answers every purpose. This new tincture has been submitted to Prof. Fraser, who, after a careful examination and subjecting it to various tests, found that it answered his requirements. The dose is from two to ten minims, and no hesitation need be felt in pushing it in suitable cases. It is made on a very large scale, some hundredweight or more being manipulated at a time, so that absolute uniformity of product can be guaranteed. The seeds alone are used, the husk and other parts being rejected. We have examined a specimen of the crude drug from which it is prepared, and have no hesitation in saying that it is the true species. The price of the tincture has been recently reduced, so that there is every prospect of its commanding a very extensive trial.

Reduced Price—½-oz. Bottles, 10/- per dozen; 1-oz. Bottles, 15/- per dozen. Subject to usual Discount.

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ESTABLISHED 1859.

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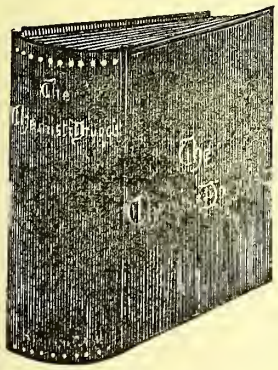
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For Australasian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

Literary Contents.

	PAGE
Bankruptcy Report	684
Chemists and Druggists' Trade Association of Great Britain	682
Correspondence:—	
The Trade Association; The Minor Examination	696
Pharmaceutical Nomenclature; The Duke of Westminster and his Tenants	697
Graph Composition; Window Attractions	698
Dispensing Notes	698
Legal Queries	699
Miscellaneous Inquiries	699
Editorial Notes:—	
The Pharmaceutical Council	686
Milk and Scarlet Fever	687
The Trade Association	688
French Pharmaceutical News	689
Gazette	681
Leaderettes	688
Metropolitan Reports	674
Obituary	690
Pharmaceutical Rhymes	685
Pharmaceutical Society of Great Britain:—	
Council Meeting	676
Prof. Maclagan's Report	679
Provincial Reports	674
Trade Notes	690
Trade Report:—	
London	691
American Market	694
Essential Oil Trade	694



THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1*s.*, or by parcels post 1*s.* 3*d.*, or two for 2*s.* 3*d.* We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.

WE have prepared a set of forms for small advertisements (assistants wanted, businesses for disposal, Exchange column, &c.). With these are attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Stamps, Law and Public Offices, &c.). We shall be glad to send one of these sets to any subscriber who will send us an addressed postal wrapper (bearing a halfpenny stamp). As the object of this production is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

MR. CARTEIGHE has been re-elected President of the Pharmaceutical Society. This makes the sixth consecutive year in which he has been chosen to this office. Mr. Sandford was President six years in succession and also filled the same office in two subsequent years; so that Mr. Carteighe has yet to beat the record. Mr. John Williams has retired from the Pharmaceutical Council on the ground that in his opinion a younger and stronger man can serve the Society better.

THE report of the discussion of the Executive Committee of the Trade Association and a letter from one of the members which we publish this week show that there is still an inclination in some quarters to make another stand. Before this is resolved on, however, there ought to be much more marked evidence of probable trade support than has yet been forthcoming.

SOUTH AFRICAN JURIES, says *Truth*, are not always very wise. A girl was charged, at the Riversdale Circuit Court, with administering poison to the family which she served. The first verdict returned was "Murder." "Impossible," said the judge; "no one has been killed!" The jury went back, and returned with a verdict of "Suicide." "But the girl is still alive!" expostulated the judge. On this the jury gave it up, and returned a verdict of "Not guilty."

DIARY FOR NEXT WEEK.

Monday, June 6.

Society of Chemical Industry (London Section), Burlington House, at 8 P.M. Dr. H. E. Armstrong on "The Alkaloids: the Present State of Knowledge Concerning Them, and the Method Employed in their Investigation." Mr. Boverton Redwood on "Notes of a Recent Visit to Some of the Petroleum-producing Territories of the United States and Canada."

Wednesday, June 8.

Royal Microscopical Society, at 8 P.M. Mr. G. Massee on "Monograph of the Genus Lycoperdon." Professor T. Rupert Jones and C. D. Sherborn on "Remarks on the Foraminifera, with Especial Reference to their Variability of Form, Illustrated by the Cristellarians."

THE WEEK'S POISONINGS.

A MAN named Beardsley (aged thirty) took 10 oz. of laudanum at Ilkeston last week, and of course died. His mother sold it in her shop, and he had been in the habit of fetching it from Mr. Potts's shop, where, on the previous day, he had been supplied with 1 lb.——At Chester last Saturday a person named Oliver, of Stourbridge, who had been suffering from rheumatism, and who was staying at the Four-in-Hand Inn, took a large quantity of laudanum, and was found dead.——On May 26 James Robertson (aged fifty), baker, West Calder, arrived in Moffat to make arrangements for taking a business. In the afternoon he purchased and drank 2 oz. of laudanum, and died from the effects of it next morning.——At Walsall on Wednesday last a verdict of "Temporary insanity" was returned in the case of Benjamin Arthur Cooper, only thirteen years of age, who committed suicide by taking a dose of strychnine because he had been accused of stealing sixpence, the property of his master, a chemist named Bayley.——Vermin-killer obtained from Mr. Bardill, chemist, St. Peter's Street, Derby, and the sale of which was duly recorded, was employed by a labourer out of work, named Gaskin, last week, to take away his life.——Another case of poisoning by rat poison (on this occasion, arsenic), reported under Bristol, is notable for the opinion expressed by the coroner that arsenic mixed with something else and sold as vermin-killer need not be coloured according to the Act.——At an inquest held last week at Bebside, near Bedlington, Northumberland, it appeared that a boy nine years of age had been poisoned by eating what he thought were "arnuts," or "earthnuts," which he and some other boys had dug up at the riverside. Dr. McLaren deposed that the deceased had eaten the root of the water-hemlock, or else the water drop-wort, in mistake for arnuts.——Under our "Metropolitan Reports" will be found a report of the death of a child from a preparation of poppies sold as "soothing syrup," and at Nottingham a child one month old has died from an overdose of Godfrey's Cordial.

Metropolitan Reports.

SOOTHING SYRUP.—On May 28, Mr. Carttar held an inquest at Deptford on the body of Morgan Morgans, aged three years. The mother said the deceased did not appear very well, and she sent her daughter, aged thirteen, to a chemist in High Street for a pennyworth of soothing syrup, and gave the deceased some of it; and about a quarter of an hour after the child went to sleep, and she placed him in bed. After a short time a change came over him. She took him in her arms, and five minutes after he died. Mr. Balls, chemist, said he sold the syrup, which was a weak solution of poppies, about twenty times a day on demand. Mr. A. Kirby, surgeon, who made a post-mortem examination, attributed death to congestion of the brain, following inflammation of the lungs, the congestion having been induced by the soothing syrup. He did not think it would have been fatal but for the inflammation of the lungs. The jury returned a verdict to the effect of death being induced by an accidental overdose of syrup of poppies. The father of deceased was turned out of the inquest room for being noisy.

THE CHLOROFORM BOTTLE.—On Tuesday, Dr. Diplock, coroner for West Middlesex, concluded a long inquiry at No. 111 Elgin Crescent, Notting Hill, concerning the death of Harry Eden Woollcombe, son of Rear-Admiral Woollcombe, who resides at that address. The child slept in his mother's bedroom, but in a separate bed, on the night of May 5, and on the following morning a nurse discovered him dead, lying on his face under the bedclothes, and an empty bottle, which had contained chloroform, near him. Mrs. Woollcombe, for whose attendance the inquest had been adjourned, deposed that when she retired to rest she rubbed some chloroform on her face to relieve neuralgia, placed the bottle under her pillow, and went to sleep. Her husband obtained the chloroform from a chemist two days before. Witness could not in any way account for her son's death, nor could she say how the chloroform bottle got on his bed. Mr. Owen Roberts and Mr. H. J. Jones, two medical men called in on the morning of the deceased's death, gave it as their opinion that he had died from a fit and not from chloroform. The deceased had before had fits. Rear-Admiral Henry Bedford Woollcombe, father of deceased, said he had many times bought chloroform for himself and his wife. He generally purchased the drug under medical sanction. The bed where the child slept was close to Mrs. Woollcombe's. After a lengthened discussion the jury returned a verdict of "Death from natural causes," some of the jurors remarking that the chloroform bottle probably slipped from the mother's bed on to that of the deceased.

THE IMPERIAL INSTITUTE.—The Organising Committee of the Imperial Institute have formulated an outline of a scheme for a body in whom it is proposed to vest the government of the Institute. This it is proposed shall consist of a General Council, the management of the Institute being vested in an Executive Council chosen by the members of the General Council from among their number. The General Council to consist of 100 members, of whom 10 are to be nominated by the Queen, 45 to represent the United Kingdom, 30 the Colonies, and 15 the Indian Empire. Of those representing the United Kingdom, the following are to be *ex officio* members:—The Speaker of the House of Commons, the Governor of the Bank of England, the Lord Mayor of London, the Lord Provost of Edinburgh, the Lord Mayor of Dublin. The country is to be divided into 17 districts, and each district represented by its mayors is to elect one representative. Three members are to be nominated by the Associated Chambers of Commerce and one by the London Chamber of Commerce, four by the Royal Agricultural Society, the Central Chamber of Agriculture, the Highland Society, and the Royal Dublin Agricultural Society, and one each by the Royal Society, the Royal Society of Edinburgh, the Royal Irish Academy, the Society of Arts, Manufactures, and Commerce, the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Iron and Steel Institute, the Chemical Societies, the Society of Telegraph Engineers and Electricians, the City and Guilds Institute of Technical Education, the Royal United Service Institution, the Royal Academy, the Mining Association of Great Britain, the Trade Union Congress, the National Miners' Union For the Colonial section of the Council:—Canada, Dominion and Provinces, and Newfoundland, are to send 10 representatives; Australian Colonies, 10, namely, 2 each for New South Wales, Victoria, South Australia, Queensland, Tasmania; New Zealand, 2; Cape Colony, 2; Crown Colonies, 6. A temporary committee nominated by the Prince of Wales are to take the necessary steps for calling into existence, as soon as practicable, the permanent governing body, and to do such other acts as are in the meantime necessary. The duties of this committee to cease as soon as the Executive Council comes into existence.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

MIDLAND COUNTIES CHEMISTS' ASSOCIATION.—The last meeting of this session was held at the Grand Hotel on Thursday evening, May 26. It took the form of a musical and social evening, and Mr. Councillor Barclay occupied the chair. Songs, piano solos, and recitations were given by the members. At the close Mr. Barclay hinted at the possibility of an excursion, and suggested that members should think the matter over and endeavour to promote the carrying out and success of that which in the past few years had become an enjoyable institution.

UNFORTUNATE.—Mr. Wm. Sharp, manufacturing chemist, Moor Street, some six weeks since slipped down and sustained such injuries that he was compelled to remain indoors till Tuesday last, when, tempted by the sunshine, he ventured out for a drive with his son. The horse bolted down the Priory Road, and the carriage coming in contact with the kerbstone was overturned. Mr. Sharp and his son, together with the coachman, were pitched out, and the vehicle descended on to the top of them. Mr. Sharp's arm was broken, whilst his son was also cut and bruised. The coachman received several injuries of an unimportant character. The three were taken to the Queen's Hospital, where their injuries were attended to; but subsequently Mr. Sharp and his son were removed to their residence in the Bristol Road.

BRISTOL.

POISONING BY RAT POISON.—On May 26 Mr. H. S. Wasbrough, city coroner, held an inquest at the Royal Infirmary on the body of Mary Dudley, eighty-two years of age, who had committed suicide by taking rat poison which contained a considerable quantity of arsenic. The deceased had been peculiar for the last fifteen months, and had to be watched. She had many times threatened to commit suicide. Police-constable Baynon said he had called on Mr. Seymour, chemist, of Milk Street, and saw the book in which the entry of the sale of the poison was made, and signed by the deceased. Mr. Seymour told him he put 12 grains of arsenic in each parcel. Evidence was given which suggested that the deceased had taken one of the powders containing the arsenic. Dr. Dacre, who gave medical evidence as to the cause of death, stated that according to 14 Vic., clause 12, all arsenic sold must be mixed with indigo or soot in the proportion of half an ounce of indigo or soot to a pound of arsenic. He had examined a packet of the vermin powder supplied by the same chemist, which was white, and seemed to be composed almost entirely of arsenic. The coroner pointed out that the Act seemed to apply only to pure arsenic, which was sold as such, and not to preparations sold under the name of vermin-killers. He was of opinion that the law should be more stringent in the matter. There seemed to be no doubt as to the state of mind of the woman at the time she committed the rash act. The jury returned a verdict "That the deceased committed suicide whilst of unsound mind."

DUBLIN.

FURNITURE POLISH AS A BEVERAGE.—At the Dublin Police Court on Saturday, during the hearing of an assault case, the defendant, a woman, charged the prosecutrix with

not knowing what she said as she drank spunk. The Magistrate: What is that? Defendant: It is that spirit which they use as furniture polish. The Magistrate: Is this true? Prosecutrix: Yes, your Worship. I do like a drop of it when I can afford it; it puts the heart in me. The Magistrate: This is a very shocking state of things. Where do you get it? Prosecutrix: Oh, I get it for three halfpence a noggin. The case was adjourned. It is believed this extraordinary drink is largely used by women in Dublin.

GLASGOW.

Druggists' Prices.—A correspondent of a local paper says:—The exorbitant prices charged by the majority of druggists has long been a bitter grievance to the unfortunate section of the community that require to partake of medicines. The price charged for the simplest prescription is simply monstrous. Yesterday I went into a well-known pharmaceutical chemist's, and asked him to put 2 drachms chloric ether, 2 drachms sal-volatile, and 2 drachms tincture of gentian into a 6-oz. bottle. On asking the price, I was informed it would be 5*d*., bottle and all. After the tonic had been put in the bottle, I requested the chemist to "fill it up"; in other words, to add sufficient water to fill the bottle. He did so, but judge my surprise when he informed me that the "mixture" would now cost me 1*s*. Need I say that I refused to pay the extra 7*d*., being perfectly cognisant that I could get one thousand gallons from the water company for almost the same amount. Water is evidently an expensive commodity in a druggist's stock.

LIVERPOOL.

Liverpool Chemists' Association.—The final meeting of the thirty-eighth annual session of this association took place at the Royal Institution, Colquitt Street, on May 26, Mr. A. C. Abraham (president) in the chair. Upon the motion of Dr. Symes, seconded by Mr. M. Conroy, the vice-president, Mr. A. H. Samuel, F.C.S., was unanimously elected president for the ensuing session.

NOTTINGHAM.

Godfrey's Cordial.—An inquest was held on Saturday by the deputy-coroner, Mr. A. Browne, on the body of a child named Eliza Hatton, aged one month. The mother, a single woman, said the child had been in a weakly and fretful condition ever since its birth, and had suffered from time to time from convulsions. On Thursday night some Godfrey's Cordial was obtained from Mr. J. B. Fletcher, chemist, and some of the mixture was given to the child. The following morning the child was taken to Mr. J. O'C. Haynes's surgery, but at twenty minutes past one o'clock it died. The mother said she did not know the word "poison" was printed upon the label of the bottle, for she could not read. She did not give the child so much of the cordial as half a teaspoonful. She received no instructions when she went for the medicine. Mr. J. B. Fletcher said there was opium in the medicine he supplied, and in the course of twenty-nine years he had never heard of any case of death arising from the use of his preparation of Godfrey's Cordial. Mr. C. R. Davidson, surgeon, in partnership with Mr. John O'C. Haynes, attributed death to opium-poisoning. He did not think it would have been safe to have given the deceased more than two drops of the cordial. The jury, after consideration, returned a verdict of "Accidental death from an overdose of Godfrey's Cordial," at the same time expressing the opinion that the mother ought to be reprimanded and cautioned to be more careful in future. They also thought that chemists should give instructions to people buying poisonous medicines. The mother was called in and cautioned.

Nottingham and Notts. Chemists' Association.—The annual meeting of the above association was held on May 25, at the Milton's Head, Councillor Fitzhugh, J.P., president, in the chair. Among those present were Messrs. Bolton, Dennis, T. Fletcher, Gill, Holgate, Jackson, Norweb, Parker, Smith, W. Widdowson, Wilford, and A. Middleton, hon. sec. The Council's annual report showed an accession of five new members during the year, but it lamented the loss of one of its auditors (Mr. J. Lewis), who had been a member since the foundation of the society. The interest of the associates had been unusually well maintained, and four students had passed the Minor examination; two of them—Mr. Allen, with Mr. Dixon, and Mr. Stanley, with Mr. Bolton—having done so without any further assistance than that afforded by classes in connection with the society. The Botanical Class was held at the University, under Professor Blake, with the following result:—College prize—C. Clutterbuck. College certificates—J. Stanley, F. Hemming, H. Roberts, W. Hurd, and R. Briggs. The class on Pharmacy was conducted by Mr. W. Gill, at the rooms of the society, in Shakespeare Street, and at the examination the successful students were A. Ball, A. Eberlin, W. Hurd, H. E. Ayris, and C. Clutterbuck. A donation was announced from Mr. J. H. Haywood for the Prize Fund. Arrangements have been made with Dr. Haydon White and Mr. Sargent for classes next winter on materia medica and dispensing. The report was adopted. The Treasurer, Mr. W. H. Parker, presented his annual statement, which showed a balance for the year of 5*l*. 12*s*. 10*d*. After being audited, it was approved. A vote of thanks was passed to Mr. Gill for his kindness in conducting the pharmacy class. The President proposed a vote of thanks to the retiring secretary, which was seconded by Mr. Robert Jackson, and carried. The election of officers next took place with the following result:—President, Mr. Councillor Fitzhugh, J.P.; vice-president, Mr. W. J. Rogerson; treasurer, Mr. W. H. Parker; hon. secretary, Mr. W. Widdowson. The ballot for the council resulted as follows: Messrs. C. A. Bolton, J. E. Dennis, T. B. Fletcher, W. Gill, A. Middleton, A. Smith, Savage, and J. Wilford. A vote of thanks to Mr. Fitzhugh for his untiring zeal on behalf of the society was carried with applause.

SHEFFIELD.

Keeping Gunpowder.—William Fieldsend, of Penistone, described as a chemist, but whose name does not appear on the register, was summoned on Wednesday at the instance of Inspector Burkinshaw, district inspector, under the Explosives Act, for storing 66 lbs. of gunpowder in his shop without a licence or the premises being registered under the Explosive Act. Inspector Burkinshaw said on the 23rd ult. he visited defendant's shop and purchased a small quantity of gunpowder. He told defendant that he had information that a quantity was stored there. He then searched the premises under a warrant. He found 66 lbs. of gunpowder in glass bottles and bags on a shelf in the shop. Defendant's premises were not registered, nor had he a licence to store it. Mr. J. Carrington, who defended, pleaded guilty to the charge, and pointed out that, although defendant was the owner of the shop, he had little to do with the management, which was left to a practical chemist named Walsh, who was an elderly man. Defendant told him he was not aware that any gunpowder was stored there. He had since got the premises registered, and he hoped the Bench would take a lenient view of the case. The Bench fined defendant 20*s*. and costs, and ordered the gunpowder seized to be returned to the defendant on a proper place been provided to store it in.

SOUTHAMPTON.

Meeting the Requirements.—An advertisement in the local papers indicates that Messrs. Randall & Son, of this town, are going with the tide, though they seem very reluctant to say so in express terms. "Recognising that their business has held its position during nearly a century by constantly meeting the requirements of the day, they beg to announce the following modification in their system:—Cash. Patent medicines and proprietary articles are now sold at a very low uniform scale of price. Drugs, chemicals, and pharmaceutical preparations; medicines dispensed by physicians' prescriptions [and many other enumerated articles] are subject to a large discount." Intimation is also given that articles sold on credit are to be reduced; and, finally, it is added, "these arrangements refer only to the Retail Department. A special list is always at the service of the medical profession; and prices of chemicals used in various trades may also be at all times obtained."

There has been keen competition in the drug trade at Southampton for some years, and in consequence of Messrs. Randall's "modifications," store prices are likely to be general.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

THE first meeting of the new Council was held on Wednesday, the chair being taken at 11.20 A.M. by Mr. Michael Carteighe, the ex-President, Mr. T. P. Gostling sitting opposite him in the vice-chair. On the right of the President's chair sat Messrs. Robbins, Greenish, Southall, Baildon, Richardson, Evans, Atkins, Hills, and Bottle, and on the left were Messrs. Allen, Newsholme, Radley, Symes, Woolley, Schacht, Hampson, Cross, and Savage.

After the Secretary had read the minutes of the May meeting, as well as of the special meeting held immediately before the annual meeting, the Chairman announced that the next business was the

Election of Office-bearers.

Then Mr. Baildon got up to break the virgin ice of the new year's discussions, his point being the election of President. It struck him that the custom of the Council in this matter was rather embarrassing to young members. It would be much better, he thought, if the names of candidates were formally proposed and seconded, then they would all know whom they were voting for. The Chairman thought that was a delicate point, and gave his support to the old custom, which was, he said, the custom of most societies. Mr. Richardson, as an old grumbler on the subject, said he was now perfectly satisfied with the method of voting, but Mr. Evans, as a new member, wished to know how long Mr. Carteighe had been President. The Council was democratic, but its officers were not, and he wished to know whether it was the custom to select, elect, or re-elect. These questions appearing to be rather delicate for the Chairman to answer, Mr. Atkins replied that he had held the office five years. At the same time he explained that, although all the members were eligible for the presidency, it would be impossible for a country member to do the duties of the office unless he came and lived in London. From his personal experience of Mr. Carteighe as President, he wished to express his very high opinion of the efficiency and zeal which he brought to bear upon the duties of the chair. Mr. Cross supported Mr. Baildon's proposition, as it would be more consistent with the ordinary course followed in filling up public offices. He at the same time gave his cordial support to Mr. Atkins's remarks regarding Mr. Carteighe's work. Mr. Woolley also made a few remarks in support of the old custom, and the ballot was taken, each member receiving a slip bearing the names of the members. These were marked and afterwards collected by the secretary, who read out the result as follows:—

Carteighe, 15 votes. Hampson, 2 votes. Hills, 1 vote.

Two ballot papers were not marked. The result (which is a stronger vote for Mr. Carteighe than last year, when 14 voted for him and 6 for Mr. Hampson) was received with great applause, and

The President at once rose and thanked the members for their renewed confidence, adding that if he were to consult his own feelings he would have given way to one who was ready to buckle on his armour, and who would be expected to do so in due course. While expressing his warm gratitude he trusted that every one on the Council, from the least to the most democratic, would give him support in the chair. (Hear, hear.)

A vote for the vice-presidency was taken, when 15 voted for Mr. Gostling, 2 for Mr. Woolley, and 1 each for Messrs. Atkins, Bottle, and Hills.

The President declared Mr. Gostling to be re-elected Vice-President for the ensuing year, and Mr. Gostling, in returning thanks, said that he had found the work exceedingly pleasant, and he hoped to give it more time this year than his health had permitted last year.

A treasurer was then elected, 18 votes being recorded to Mr. Robbins, and one each to Messrs. Hampson and Hills. Mr. Robbins was therefore declared re-elected, and in thanking the members for the honour said that he feared he would not be able to report so good balances in the future as in the past, but he felt that the expenditure in connection with the research laboratory, &c., would do more good to the Society than anything for which they had expended money.

The Honorary Members

who were elected last month, and whose portraits we have recently published, had all written to the President thanking the Council for the honour done to them. The President had the little pile of letters before him, and these he read to the Council, giving the leading points of those which were written in French and German. Authority was given to affix the seal of the Society to the certificates which are to be forwarded to these gentlemen.

Spoilt Voting Papers.

Every year there are a number of the Society's voters who do not come up to time with their voting papers. This year there were seventy-four who sent their votes too late by post, and on behalf of these Mr. Richardson rose to explain that a great many did not understand what was meant by "one clear day" as stated on the papers. He understood that two nights and a day were meant, so that papers received on Tuesday (the day before the annual meeting) were not counted. He considered this a little hard, and suggested that the date should be specified.

Dr. Symes remarked that this matter had been considered by the Council before, and it was agreed that it was desirable to receive voting papers which were received by post on the morning of the annual meeting, but they could not adopt this course owing to the by-laws. It was really a case in which they could not help themselves without some alteration of their powers.

Mr. Allen read section 21 of the 1868 Pharmacy Act, which specifies the one clear day. He mentioned that the matter had frequently received the attention of the scrutineers. The President here showed Mr. Richardson one of the voting-paper envelopes on which was prominently printed a statement that the voting paper, if sent by post, must be received by the secretary not later than Monday, May 16. Dr. Symes said that what was wanted was an amendment to the section which had been read by Mr. Allen, and Mr. Hampson suggested that this might be sought in the Bill now before the House of Commons. This suggestion apparently appalled several of the ardent educationalists, but no further comment was made upon it, and Mr. Richardson asked why the date was not also printed on the voting paper. The President replied that the by-laws would not allow that, and although it were done there would still be members who would send their papers late.

The Secretary: We do receive voting papers after the election, sir. (Laughter.)

The matter then dropped.

The standing orders having been adopted, Mr. Richard Bremridge was reappointed Secretary and Registrar. Dr. B. H. Paul and Mr. F. Passmore were re-appointed Editor and Sub-editor of the Society's Journal. [Mr. Richardson, interpolating the query, "Should a discussion on the alteration in the Journal come on now or later on?" the President replied with a laugh, "Later on," but it did not come on at all.] Mr. E. M. Holmes was appointed Curator, and Mr. J. R. Hill was reappointed Assistant Secretary.

The nomination of local secretaries was referred to a committee. The Secretary stated that last year 321 towns were entitled to a local secretary; five had since been added and two removed from the list. From 201 of the towns votes had been received, and 123 had not made any recommendation and did not have local secretaries.

Several persons were elected members, associates, and apprentices of the Society, and the Secretary informed the Council that Mr. John Strawson, 80 Grange Road, West Birkenhead, had made the necessary statutory declaration, and had been placed on the register of chemists and druggists.

Resignation of Members.

The President read a letter which he had received from Mr. John Williams, who had been re-elected to the Council, in which he stated that he felt compelled to retire. He had arrived at this decision through several considerations, but chiefly because he felt that the number of London members was getting dangerously small for the conduct of committee

work, which brought the metropolitan members frequently together, and as his health did not permit him to take his full share of the work he did not care to keep out better men. The President mentioned that Mr. Williams had been asked to reconsider the matter, but he declined to withdraw his resignation. In the circumstances, therefore, he would submit a resolution officially with a view of paying honour to Mr. Williams. That resolution was that—

> The members of this Council desire to express their regret that their esteemed colleague, Mr. John Williams, has resigned his seat as a member of the Council, and record their sense of the great value of the services he has rendered as President of the Society for three years and a member of the Council for seventeen years. They would further express the hope that the Society, in its efforts to promote the best interests of pharmacy, may still receive his advice and assistance.

Mr. Williams, said the President, came on the Council twenty years ago, just when he himself had first a seat at the table, and his close contact with him as a colleague during that period enabled him to speak of his high qualities. He had come on when Mr. Morson retired, and had been three years Treasurer and three years President of the Society. During the whole of the time he had devoted himself most assiduously to his duties, and he ventured to say that there had been no more independent member than he. Indeed his independence was so marked that it had not infrequently chafed some of his colleagues, but no one ever dreamt that Mr. Williams's independent action was not the result of honest conviction, as it was also free from irritation. He was able to say that their respected friend had given a large share of his time and money to the Society. His efforts had always been in the broad way; he never attempted to further trade interests without regard to public interests at the same time. This, indeed, was the characteristic which impressed them most about Mr. Williams; he held it so strongly that it made him somewhat timid at times. He could not help saying in regard to Mr. Williams's seventeen years' active service and active interest in the Society, and in view of the fact that he was one of its earliest students, that his retirement impressed upon him the fact that the Society was getting a history. (Hear, hear.)

Following the President, a large number of the members paid their tribute of affection to their old colleague. The Vice-President (who seconded the motion) said he had personally benefited from his intercourse with Mr. Williams, especially in the management of the Benevolent Fund, and considered his resignation "a very great loss" to the Council. Mr. Savage said "it was a pleasure to work with him, and all would regret his absence." Mr. Atkins, during an eloquent little speech, remarked that a faithful servant might expect a word of recognition from all. He had always admired Mr. Williams' independence of character, his liberality and devotion to his work. All the more did he admire those characteristics because Mr. Williams was a busy man of business, a hard worker, who could ill afford the time which he gave so ungrudgingly to the Society. Moreover, from his scientific attainments and his connection with other scientific bodies, he considered that he had brought honour to the Society. Mr. Bottle said the only redeeming feature about the resignation was that Mr. Williams was consulting his own health. He had been an active and independent worker. Mr. Hampson said that he had lost a very dear friend, and Mr. Robbins said he had valued him as a personal friend. Mr. Richardson relieved the despondent tone of the eulogium by remarking that Mr. Williams had been one of the few sages of the Council; there were others round the table who were young in years but sage in appearance. Mr. Williams, in his work on the Benevolent Fund Committee, had always acted on the principle embodied in the couplet:—

> To my faults a little blind,
> And to my virtues very kind.

Messrs. Greenish, Hills, and Symes having spoken, the President remarked, on the suggestion of the latter, that it was very natural that every member would wish to express his feelings, but considerations of time prevented them. The resolution was then put and carried unanimously.

A similar resolution was then submitted in reference to Mr. Borland, who had not accepted re-nomination—which is equivalent to resignation, and is treated as such. The resolution is as follows:—

> This Council regrets that Mr. Borland was unable to accept nomination for re-election as a member of the Council, but hopes that his retirement is only temporary, and that they may have on a future occasion the benefit of his valuable assistance in their deliberations.

In moving this resolution the President said that he would leave it to Mr. Baildon to speak more minutely regarding Mr. Borland, but he would say that Mr. Borland's services to the Society had been given both as an examiner and a member of Council. He was an excellent pharmacist, microscopist, and botanist—indeed he was intimate with every branch of science, and at the same time took a practical interest in his business which was surprising.

The motion was seconded by the Vice-President, and Mr. Baildon, in supporting it, said that he very much regretted that he should have to do so, for Mr. Borland's retirement was a great loss to the Council. He was a man of exceptional culture and ability, and as a practical working pharmacist was a model. His retirement was entirely due to his business being a large and growing one, which required his attention, and the long journeys from Scotland were too great a strain upon him.

The resolution was then carried unanimously.

Formation of Committees.

This being the next business on the agenda paper, Mr. Allen asked the President to explain for the benefit of the new members what appointment on the committees involved. He spoke of the complaint frequently made that too much work had been done in committee, the fact being that it could not be done in any other way. He also delicately hinted that London members of the Council did more committee work than country members, and stated that the result of the last election was that the votes given were in the reverse of the work done. This remark brought up Dr. Symes, who pointed out that Mr. Allen did not take into account the time which country members sacrificed in travelling to London. He protested against a distinction being drawn between London and country members, for he was sure all were equally willing to work. This remark was loudly applauded, and when the speaker protested against the publication of the attendances at committees, a demand arose for a little talk in committee about the matter. Before the flag went up the President said that there was a lot of dull routine work done by members of the Council which the Society had no idea of. Much of this undoubtedly called for great sacrifice on the part of the London members, but he was sure the country members would be as willing to do it if favourably situated. The discussions at the council table did not amount to one-twentieth of the work done. The other nineteen-twentieths were explained in committee, and on resuming the following committees were appointed:—

General Purposes.—The whole Council.

Finance.—President; Vice-President; Messrs. Allen, Evans, Hills, Savage, Schacht, Southall, and Woolley. To meet on the day previous to the Council meeting, at 3.30. P.M.

Benevolent Fund.—President; Vice-President; Messrs. Atkins, Baildon, Bottle, Cross, Greenish, Newsholme, Radley, Richardson, Robbins, and Symes. To meet at 3.30 P.M. on the day previous to Council meeting, and at other times when necessary.

Library, Museum, Laboratory, and House Committee.—President; Vice-President; Messrs. Allen, Atkins, Bottle, Cross, Greenish, Hills, Robbins, Savage, Schacht, and Symes. To meet at twelve on the second Wednesday of each month.

Law and Parliamentary.—President; Vice-President; Messrs. Allen, Atkins, Baildon, Bottle, Cross, Hampson, Hills, Newsholme, Richardson, Robbins, Schacht, Symes, and Woolley. To meet when required.

Building Committee.—President; Vice-President; Messrs. Allen, Bottle, Hampson, Hills, and Robbins.

Evening Meetings.—The Professors, the Editor, and the Curator of the Museum to consult with the President and Vice-President as to the arrangements for the evening meetings.

It was understood that the list of attendances would be discontinued. The Council then adjourned for luncheon. On resuming, the following reports were submitted and adopted:—

Finance.—This report showed large receipts during the past month. Various payments were recommended, including another 1,000*l.* on account of the new building, as well as payments to the Surveyor for expenses of the conversazione. Mr. Richardson asked if the latter payments were legal, which the President answered in the affirmative. Mr. Greenish complained about the quality of the refreshments at the conversazione, saying that he might almost repeat what had been said one year, that they were only fit for the animals at the Zoo. But this was the first complaint that the President had heard. In reply to Mr. Hampson, the Secretary said that 2,000*l.* had already been advanced to the contractor of the new buildings, and that the amount of the contract was 6,300*l.*

Benevolent Fund.—The applications of four persons had not been entertained; one grant of 10*l.* and two of 5*l.* were recommended. The person to whom 10*l.* was granted was recommended for the provisional list of candidates for annuities.

At this stage a Jubilee grant was proposed, but was postponed to a later stage of the proceedings.

The Minor Examination.

The President then suggested that Dr. Symes should have precedence for his motion in relation to the examinations. Mr. Hills and others objected to this, but ultimately Dr. Symes was allowed to proceed. He said that the object of the motion was that candidates should not be rejected on the first subject in which they were examined. The motion was as follows:—

> That whilst this Council entertains a high opinion of the manner in which the Boards of Examiners perform their duties, it would suggest for their consideration the desirability of adopting a regulation to the effect that no candidate be rejected on examination in one subject only.

Before Dr. Symes began to speak to his motion, Mr. Schacht wished to have the discussion in committee. This was objected to by several, and the result was a lively debate, ending in a division.

Mr. Schacht said that in view of the delicate relation of the Council with the Board of Examiners, to whom they were not accustomed to dictate, and in view of the present state of matters in relation to education and examination, he considered it undesirable to have a public discussion. His desire was that a report of the discussion should not be published. The report might be seen by some who would misconstrue the meaning of it, and attribute the failures in some way to the method of examination.

Mr. Bottle supported this view.

Mr. Hampson considered that Mr. Schacht was very irregular in making this proposal, and he could not conceive how the reporting of the discussion would have the effect which he alleged. He took an entirely different view of the publication of a report, viz., that they would show all who were interested that they were desirous of inquiry into any hardships which might exist.

Mr. Richardson also objected to "burking" the discussion. Some members seemed to have a fear that the examiners would be criticised, and were afraid of hurting those gentlemen's feelings.

Dr. Symes explained that he had no idea of criticising the examiners, and he would say nothing which would hurt their feelings. This motion did not dictate to them—in fact, its wording was purposely intended to convey the opposite impression. He entirely objected to going into committee. It must be open or he would be done with the matter.

After some free talk Mr. Schacht again appealed to Dr. Symes to allow the matter to be discussed in committee. He did not wish to discourage criticism, but he would much prefer that the matter should not be discussed at all rather than have it open. In committee they could arrive at a decision as to what might be said openly. Moreover, one party to the matter—the examiners—was not present.

Mr. Cross said that generally he was distinctly in favour of open discussion, but, he remarked, circumstances alter cases. He was quite of opinion that Dr. Symes would say nothing which ought not to be published, but there were young members, like himself, who might say something which they would regret when they saw it in print.

Mr. Bottle having asked Dr. Symes a question which required him to go into the subject matter of his resolution, Dr. Symes said that Mr. Schacht's motion should first be disposed of. There was one part of the Council there to speak in support of the resolution, and another part to reply. There was no difficulty in the matter at all. He simply proposed that a certain point should be remitted to the Boards of Examiners for consideration. He strongly protested to going into committee in order to arrange what they should say, and coming out with their speeches cut and dried. That was not an honest practice which they had fallen into. He had no particular wish for publicity, but this was a matter which had already been made public at the annual meeting, and was still being considered, and it was right that it should be threshed out publicly. Then, said Mr. Hampson, there is this that must be kept in mind. If the discussion were taken in committee outsiders would think that there was much more in it than there really was—something to hide. If there was any suspicion that the examination was at fault, the discussion would show how far that was the case.

Mr. Evans said that if the matter was not discussed openly he hoped that Dr. Symes would not submit it at all. But Mr. Atkins respectfully disagreed with that advice. A much better view of the case would be arrived at in committee, and points would be raised which no one would mention in open council. Mr. Woolley pointedly remarked, "Let us have it out publicly if it is to be withdrawn when we go into committee." A vote was then taken with the following result:—

To go into Committee: Messrs. Allen, Atkins, Baildon, Bottle, Carteighe, Cross, Gostling, Greenish, Hills, Robbins, Savage, Schacht, and Southall.—13.

Against: Messrs. Evans, Hampson, Newsholme, Radley, Richardson, Symes, and Woolley.—7.

The Council accordingly went into committee, and a few minutes later reporters were requested to withdraw.

On resuming an hour and a quarter later the President intimated that the resolution had been withdrawn.

The Jubilee.

The next business which the Council was called upon to consider was a motion by the President that a "loyal and dutiful address" should be presented to her Majesty in congratulation of the fiftieth anniversary of her ascent to the throne. These things, remarked the President, were properly done by those bodies which have obtained their charter during the Queen's reign, and as the Pharmaceutical Society comes within the category, he considered that the dutiful address was the proper thing to do; and so said the rest of the members in effect, the motion being unanimously agreed to.

Then Mr. Bottle proposed to mark the occasion by something substantial, viz., to give each annuitant, and each person who has tried but failed to become an annuitant, a present of 5*l.* "for their full enjoyment of the Jubilee." This, Mr. Bottle explained, would involve an expenditure of 240*l.*, and the President took occasion to refer to the last dinner, which he stated had already yielded 1,200*l.* Replying to our comments on the falling off from previous occasions, he said that he had gone into the matter, and had found that during the last ten years the number of donations had largely increased. Taking this into account with other factors, such such as bad trade and other calls upon firms for the exercise of their benevolence, he thought they had every reason to be satisfied with the result.

Mr. Allen agreed with Mr. Bottle's proposal, and said that while perfectly satisfied with the result of the dinner, he was not pleased to note that a little over three hundred only appeared on the list, while so many thousands were eligible for relief. He had taken the trouble to call upon chemists in his own district, and had got about 9*l.* as well as promises, and hoped that all local secretaries would do the same.

In reply to Mr. Radley, Mr. Bottle explained that he did not definitely formulate his proposal until that morning, and as all bodies were doing something of the kind he thought the Society should also conform. The sum required would leave 1,000*l.* of the dinner fund to be invested. Dr. Symes supported the motion, but expressed the hope that this liberal grant would not interfere with casual grants in the future—he meant that this excessive burst of charity would not dry up their fountain of benevolence, as was sometimes the case in such circumstances. Mr. Atkins also pressed this point, and remarked that it was taking a good deal out of their ne

egg. In reply to Mr. Newsholme, the President said that the dinner fund would not close for two months, and that he hoped to publish a supplementary list. Mr. Robbins also spoke and the motions were agreed to. A sum of 50*l.* was also voted as bonuses to the clerks and servants of the Society in commemoration of the Jubilee.

A report from the Laboratory, &c., Committee was submitted. The most interesting matter referred to in it was the

RESIGNATION OF PROFESSOR BENTLEY.

The committee recommended that the Professor be appointed Emeritus Professor, with a retiring allowance of 100*l.* a year, and that the teaching of botany and materia medica should be separate. They, therefore, proposed that a professor of botany should be appointed with 150*l.* a year and fees, and that another person should teach materia medica by means of demonstrations, for which he would receive the class fees but no salary.

The President, in submitting this report, said that Professor Bentley had been of great assistance to the Society in many ways, and in consideration of his long and valuable services he thought they would do him honour by appointing him Emeritus Professor, so retaining his connection with the institution. Considering that the Council consisted of the Professor's old pupils, he was sure that they would be glad to acquiesce in the committee's proposals. He spoke highly of his attainments and of his success as a teacher, and trusted that he would have renewed health on his retirement. In regard to the separation of the subjects he explained that it would be a difficult matter to get one who could teach botany as they desired, who would be able to give that attention to materia medica which was essential. They therefore proposed that the latter subject should be taught by means of museum demonstrations.

Messrs. Cross, Hills, Schacht, Symes, and Atkins then supplemented the President's remarks in regard to the retirement of Professor Bentley, and reference was specially made to his earnestness as a teacher, his kindly courtesy to his pupils, and the unquestionable permanency of the education which he had imparted to them.

Mr. Schacht seemed doubtful about the wisdom of the proposed change in the method of teaching the subjects, whereas Dr. Symes thought that in botany they wanted a young man with modern views, and in materia medica the system of class demonstrations was by far the best. This was a reply to Mr. Schacht, and the President said that it exactly expressed the views of the committee; moreover, it was desired to free the method of teaching entirely from any appearance of medical training. The report was adopted, and the Council went into committee to consider a matter in relation to the North British Branch, upon which Mr. Baildon wished advice.

On resuming, the Secretary read the report of the Dinner Committee, which was adopted. The President stated that he had received from the Privy Council a copy of Sir Douglas Maclagan's report of the examinations conducted in Edinburgh. This was ordered to be entered in the minutes and to be printed. The following is the report:—

REPORT ON THE PHARMACEUTICAL EXAMINATIONS AT EDINBURGH.

BY SIR DOUGLAS MACLAGAN.

(*April*, 1883, *to January*, 1886, *inclusive.*)

"I regret that I have been unable till now to make my report on the pharmaceutical examinations, which was delayed much beyond the time when it ought to have been rendered by a long period of personal suffering coming upon me along with domestic bereavement.

"My present report, as on the two preceding occasions, embraces a period of three years, namely, from April, 1883, to January, 1886, inclusive.

"Before making any observations in detail on the results of the examinations, I have to make the general statement of my satisfaction with the manner in which the examiners have discharged their duties.

"There have again been some changes in the *personnel* of the Board, but there has been no change in the quality of the examinations, and I can only repeat what I have formerly had reason to say, that the decisions of the examiners appear to me to be justly apportioned to the quality of the answers given, and that a due regard is held alike to the welfare of the public and the interests of the candidates. I believe that those who pass the Minor examinations are duly entitled to obtain the certificates, and qualified to undertake the duties of chemists and druggists.

"Of the three classes of candidates who have come up for examination, I need refer only to the Majors and the Minors.

"The Modified examination candidates are now practically an extinct species, only one candidate having appeared in each of the three years to which this report refers; two of these passed and one failed.

"The results of the examination of the two other classes are shown by the followng table:—

Class	Candidates	Passed	Failed	Per cent. o Failures
Majors	.. 25	10	15	60
Minors	.. 522	234	237	54·1

"In the previous triennium the numbers were:—

Class	Candidates	Passed	Failed	Per cent. of Failures
Majors	.. 29	15	14	43·2
Minors	.. 292	166	123	43·15

"It will be seen from a glance at these figures that I am called upon, much to my regret, to repeat what I had occasion formerly to say, that so far from the number of ill-prepared candidates diminishing, it is actually increasing, which circumstance manifests a deplorable ignorance on the part of candidates, and of the persons who are responsible for their training, of what is to be expected from those who desire to obtain a pharmaceutical qualification, and of the means of qualifying themselves for it.

"I had hoped that remarks which have been made not only in my reports but elsewhere would have enabled me considerably to depart from the line of observation made by me in my last report, and to take a more hopeful tone as to the progress of pharmaceutical education in Great Britain, but the facts are against me. I can do little else than repeat what I said formerly, and express my belief that pharmaceutical education is on a wrong basis altogether, and that some radical change is called for.

"Three years ago I expressed my concurrence in the views of those who desire to see a regular curriculum established for students of pharmacy, and from that opinion I do not resile.

"I am led to understand that the position of the Pharmaceutical Society, as defined by the existing law, prevents the adoption of a curriculum. If this be the case, all I can say is that, however difficult to obtain, some legislation to amend this state of matters is decidedly called for.

"It may be said that if the North British Branch of the Pharmaceutical Society has been able during the last three years to send out 234 men with certificates in their hands, all of whom may, so far as public safety is concerned, be entrusted with the responsible duties of chemists and druggists, the wants of the country are fully supplied, and that we may rest content with things as they are. This would be all very well if the protection of the public from unqualified druggists were all that is to be sought for from pharmaceutical examinations; but there is another and at least equally important object to be kept in view, namely, the raising of the character of the pharmaceutical profession generally throughout the country.

"When I gave evidence before Jacob Bell's Committee of Parliament in reference to pharmaceutical legislation, that which bulked most largely in my view was the elevation of the character of British pharmacy, and the bringing it up to some such level as that which it had attained in Continental countries. My experience as a student and practitioner of my own profession, and still more as a lecturer for many years on materia medica, had shown me that there were plenty of excellent pharmaceutical chemists in Britain, as there are at this day, but I held that Continental pharmacy was ahead of British pharmacy to an extent it ought not to be, and I continue to hold that opinion.

"I shall, I daresay, be accused of harping on one string, but I believe that the string gives the true keynote to what ought to be heard on the subject of pharmaceutical educa-

tion. If the character and status of the pharmaceutical profession can be raised by bringing into its ranks a larger number of men of higher scientific attainments, of whom no doubt not a few exist among us, the public requirements will be all the more fully and safely met, and the interests of the Pharmaceutical Society of Great Britain advanced.

"I have to make some observations on the special subjects of failure on the part of candidates, under the two heads of Majors and Minors.

"*Majors.*

"The following table shows the percentage proportion of subjects in which the fifteen unsuccessful candidates failed:—

Subject	Per cent. of Failures
Botany	13·3
Materia medica	13·3
Practical chemical working	60
Failure to obtain pass numbers.. ..	13·3

"*Botany.*—This truly scientific subject is one on which many candidates for the Major qualification make very indifferent appearances, though now and then a candidate appears who has thoroughly studied botany and knows it. I hear many candidates describe botanical structures very fairly, but I have no assurance that they know them, if I may say so, personally, so as to be able to apply their botanical knowledge practically.

"I must here refer to a subject on which I have already freely expressed my opinion, namely, the absence from this examination of the microscope. I cannot understand why no demand should be made on candidates, at all events for the Major qualification, to show that they know the use of an instrument which is essential to any investigation of botanical structure; without which no cultivator of natural science can move a step; which is appealed to in almost every number of the *Pharmaceutical Journal*; and which in not a few instances is mentioned as a means of determining the quality of drugs in the British Pharmacopœia.

"*Materia Medica.*—The Major examination in this department is satisfactory, demanding a much larger amount of pharmaceutical knowledge than is to be expected from the Minors. This subject does not call for further remark.

"*Practical Working.*—I have as usual to point out that the large proportion of failures in this subject is due to the fact that candidates come up for 'Practical Working' a day before the oral examinations, and if they fail in the practical work they proceed no further. The substances selected for analysis are in general exceedingly suitable for the purpose, but I have had occasion to remark that when these substances or mixtures have been more of the pharmaceutical than of the merely chemical type the failures are more frequent.

"I infer from this that there is a neglect, or perhaps rather want of opportunity for candidates extending their knowledge of pharmaceutical chemistry after they have finished their more elementary chemical instruction. The candidates are frequently set to perform analysis by volumetric processes, which is very important, but if it were not for considerations of expense I could wish that the time for practical working extended over more than one day, so that there might be better opportunity for candidates working by the gravimetric method, and showing their familiarity with the use of the balance.

"As the general result of the Major examination, I repeat my desire that it were raised in character, but as matters now stand, I am of opinion that the decisions are equitable, and that those who do pass—only 40 per cent.—are fairly entitled to bear the higher denomination of pharmaceutical chemists. I would be glad, however, to see it become the expression of a higher stamp of attainment than at present.

"*Minors.*

"I refer to what I have said above as to the great and increasing proportion of failures in the examinations. These remarks apply specially to the Minors.

"There is one point to which I wish to call attention as worthy of consideration.

"The rule is that no candidate can reappear for examination till three months after his remission, but there seems to be no power on the part of the Examining Board to refer the candidate to his studies for a longer period. It seems to me to be a waste of the time of examiners, and an encouragement to remitted candidates to take a perfunctory view of what they require in the way of study, to allow men who are absolutely ignorant to come up again before six months at least. There is little hope that three months' study, even if devoted to the one subject, would make much of a botanist of a man who did not know the stamens on the male catkin of a willow, and who thought that the pollen of a plant became its seed; or anything but a very indifferent chemist of one who could not explain why such and such a quantity of a base was required to saturate such and such an amount of an acid—who, in fact, seemed never to have learned so rudimentary a chemical doctrine as that substances combine in definite proportions. I am not in the least degree afraid that by a little more severity in the way of the length of the period of remission candidates would be so deterred as to diminish the supply of chemists and druggists required for the wants of the country.

"On the details of the Minor examinations I need not say much, as I have little else to do than to repeat the remarks made in former reports.

"The following table exhibits the percentage of the special subjects in which failures took place during the triennium now under consideration, as contrasted with the two previous triennia.

Subject	1877–80	1880–83	1883–86
Botany	32·12	20·80	16·30
Chemistry..	23·08	17·44	14·90
Materia medica	6·41	6·71	5·90
Prescription reading ..	1·92	5·38	3·10
Dispensing	15·38	12·08	16·30
Pharmacy..	23·08	12·08	4·50

"It will be seen that these numbers present some satisfactory features. I am disposed to draw from the facts all the good augury I can—for instance, from the circumstance that the rejections in botany and chemistry have decreased, and I would wish to derive the hope that we are at the beginning of a period of greater attention to these important scientific branches. All this, however, does not enable me to depart from what I have expressed above as to the general deficiency in the education of candidates at present existing. These actual numbers of failures in individual subjects are liable to great variation from a variety of causes, but I need not say that if these improvements were continued through another triennium it would give substantial promise of better things. The inefficiency of the present state of pharmaceutical education must be judged of by the general result, which points not so much to failure in special subjects as to general deficiency all round, on account of which candidates do not come up to the pass number of marks (600). That the number is increasing, not diminishing, in the case of the Minors is evidenced by the following comparison of the last three triennia:—

Years	1877–80	1880–83	1883–86
Per cent.	37·3	43·15	54·1

"There is one special subject on which I desire to make a remark. This is dispensing, in which—the most practical of all, and that which has the most direct bearing on the welfare of the community—the failures are exactly as numerous as in the purely scientific province of botany. I have had occasion to direct attention to this before, and have appealed to the consciences of those who have young men under them as apprentices, but no general satisfactory result has followed. I am myself persuaded that in a large majority of instances the time spent in apprenticeship is time lost. Of course, I know that there are many exceptions to this, and that there are establishments an apprenticeship in which is (if we put out of view botany and pure chemistry) a complete pharmaceutical education. In the more numerous instances, however, I think a young man would be more usefully employed in attending lectures and reading books than in standing behind a counter and retailing drugs, with few opportunities of really learning how to dispense, and no opportunities of practising the making of the galenical preparations of the Pharmacopœia.

"There are two circumstances which appear to me to have an evil influence, in lessening the opportunities of the student of pharmacy for learning practical dispensing. The first of these is the system of medical practitioners dispensing their own medicines. In Scotland we have comparatively little of

this, except, of course, in rural districts and among an inferior class of practitioners in some of the larger towns, who are to be regarded rather as druggists possessing a medical qualification than as medical men dispensing their own medicines. This is not the place to discuss the merits of the above practice, except in so far as it has a bearing on the student of pharmacy, and I can hardly see how the fact of medical men sending out medicines to their own patients instead of writing a prescription and sending it to the pharmaceutist to dispense, can fail to lessen the opportunity of the apprentice of the latter to learn practical dispensing.

"Of course he may, though not in possession of a pharmaceutical diploma, act as a dispenser, but is it possible for him to have, in the surgery of a busy practitioner, that supervision and guidance which will enable him really to dispense *cito, tuto et jucunde?*

"The other circumstance which appears to me to be inimical to the interests of him who wants to learn practical dispensing is the system of proprietary preparations of recognised medical substances, which seems to be attaining to large proportions, if one may judge from the gigantic system of advertising now in vogue. Of course both the parties to whom I allude are strictly within their rights. The medical man may if he chooses add the functions of the pharmacist to those of the practitioner, and the druggist, remembering that pharmacy is both a trade and a profession, may take the former view of it in preference to the latter, and carry on his trade by the aid of advertising his goods, with the help of commercial travellers, and the free distribution of samples. But if this practice is to become general, and if the public are to prefer to the physician's prescription dispensed by the duly qualified pharmaceutical chemist the proprietary preparation for whose qualities they have only the assurance of the advertiser, it follows that the chemist's apprentice must be shorn of much of his opportunity for learning the practical art of dispensing.

"If any relief in these respects is to accrue to the pharmaceutical profession it must come from the side of the profession of medicine.

"I have thought it my duty, as acting on behalf of the Privy Council, to point to some suggestions for the amelioration of pharmaceutical education. The fact that for several years no improvement has taken place in the average qualification of candidates seems to me sufficient warrant for a demand for such improvement. The most important of these suggestions, that which has given and will give rise to much discussion, is the having a more systematic method of instruction, whether that shall take the form of a regular curriculum or not.

"I care little for a hard-and-fast curriculum, provided that some security is had that, at least in the scientific departments, such as botany and chemistry, it shall be secured that each candidate has had methodical instruction.

"The second suggestion to which I would point is that the Major examination should be raised in character, and that as an instalment towards this end candidates should be made to show that they can recognise plant structures and medicinal substances under the microscope, and that they should have more time for practical work in the laboratory.

"As regards the Minor examination I do not ask for more stringency. The examinations are perfectly good in this respect, but I would wish to see, as the result of a better education, that a higher style of questioning would be not merely not too severe, but would be within the compass of all candidates who desire to give proof of having really been students of pharmaceutical science. Lastly, I would draw attention as above to the suggestions as to giving examiners some discretion as to remitting for a longer period to their studies candidates who come up altogether unprepared.

"I do not expect that all or any of these suggestions will be speedily adopted, but I throw them out as at least deserving of consideration.

(Signed) "DOUGLAS MACLAGAN.

"Edinburgh: November 24, 1886."

The only other matters brought before the Council were the appointment of a person to deliver the sessional address in October, and the resolutions passed by the Dover Chemists' Association in regard to certain Excise prosecutions. This was referred to a committee. [The resolution in question will be found in this Journal, May 21.]

The President then intimated that the report of the Building Committee was the only remaining business, and that it would be considered in private. By this time about half of the members had left.

Gazette.

PARTNERSHIPS DISSOLVED.

ALLEN, A. H., & BAYLEY, T., Birmingham, analytical chemists.

CRANE & HART, Folkestone, Hythe, and Cranbrook, Kent, dental surgeons.

CRAWFORD, J. T., CORY, J. T. H., and DIXON, B., under the style of H. Sardou & Co., Red Cross Street, City, and under the style of Crawford & Co., Albion Road, Stoke Newington, wholesale perfumers; as far as regards J. T. Crawford.

INMAN BROTHERS, Halifax and Leeds, mineral-water manufacturers.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

ADAMSOM, WILLIAM BOWSER, Newcastle-on-Tyne, druggist and drysalter.

COOKE, PHILIP, Church Row, Wandsworth, chemist and newspaper proprietor.

DESBOROUGH, JAMES GEORGE (trading as Taylor & Co.), Daventry, chemist and druggist.

MARTIN, HENRY (trading as John Hassall), Northbury, Barking, Essex, and St. Paul's Churchyard, brush and comb manufacturer and sponge merchant.

PLOMLEY, WILLIAM, Peasmarsh, Sussex, veterinary surgeon

FIRST MEETING AND PUBLIC EXAMINATION.

ADAMSON, WILLIAM BOWSER, Newcastle-on-Tyne, druggist and drysalter. First meeting June 6, Official Receiver's offices, Newcastle-on-Tyne. Public examination June 2, County Court, Newcastle-on-Tyne.

DAY APPOINTED FOR PROCEEDING WITH PUBLIC EXAMINATION ADJOURNED SINE DIE.

DUGDALE, EDWIN (trading as the Liverpool and North and South Wales Panacea Beer and Beverage Manufactory), Liverpool, panacea beer and beverage and mineral-water manufacturer and dealer. June 13, Court House, Liverpool.

ADJUDICATION.

TAYLOR, EDWARD, Birmingham, drysalter.

NOTICE OF DIVIDEND.

BARNARD, ALFRED (trading as Ferris & Co.), Fleet Street and Park Road, New Cross, advertising agent and contractor, and vendor of Ferris's Persian Food. 2*s.* 6*d.* composition, any day except Saturday, Chief Official Receiver's offices, 33 Carey Street, Lincoln's Inn.

MR. J. T. COATS has taken over the Broughton Street business of Mr. A. Y. Macfarlane, Edinburgh, lately bankrupt.

MR. GEORGE BROWNEN, F.C.S., who gave scientific evidence in the case of Condy & Mitchell *v.* Taylor was made to say in our report last week that he is in charge of Messrs. Savory & Moore's laboratory. Mr. Brownen asks us to state that in his evidence he stated he *was* formerly in that position.

The Chemists and Druggists' Trade Association of Great Britain.

A SPECIAL meeting of the Executive Committee was held on May 25, 1887, at 23 Burlington Chambers, New Street, Birmingham, to consider the position of the Association.

Mr. W. G. Cross (Shrewsbury), President, in the chair.

Present:—Messrs. Andrews (London), Arblaster (Birmingham), Barclay (Birmingham), Bell (Hull), Chapman (Scarborough), Churchill (Birmingham), Harrison (Sunderland), Holdsworth (Birmingham), O. Jones (Llanrwst), W. Jones (Birmingham), Laird (Edinburgh), Mackenzie (Edinburgh), Parkes (Nottingham), Symes (Liverpool), Walker (London), and the solicitor of the Association.

Communications were read from Messrs. Maltby (Lincoln), Crook (Eastbourne), Hampson (London), Jervis (Sheffield), and Paterson (Aberdeen), regretting their inability to attend.

The minutes of the previous meeting of the committee were read and confirmed.

The following report was then read:—

Report of the Finance Committee.

Your Finance Committee met on April 18 last, when the Secretary's last statement and all books of account were examined and passed for audit, and several accounts were examined and ordered to be paid. The financial statement duly audited by the official auditors of the Association, showing a balance of 302*l.* 15*s.* 10*d.* to the credit of the Association, appears as an exhibit to this report, but from this amount will have to be deducted some outstanding accounts and the current expenses of the Association.

Financial Statement from April 16, 1886, *to April* 18, 1887.

Receipts.

	£	s.	d.	£	s.	d.
Balance brought forward from last account, viz.:—						
Balance at Lloyds, Barnetts, & Bosanquets's Bank (Limited)	305	0	11			
Ditto in hands of Treasurer	8	3	9			
	313	4	8			
Deduct law costs unpaid	19	12	2			
				293	12	6
2,216 subscriptions, at 5*s.* each				554	0	0
Donations				469	1	0
				1,316	13	6

Payments.

	£	s.	d.
Advertisements	10	11	6
Auditor's charges	12	12	0
Canvassing expenses	3	18	2
Hire of room for public meetings	3	15	0
Law costs, viz.:—			
Solicitor's charges	213	11	5
„ travelling expenses	11	10	4
Witnesses' charges and expenses	45	18	9
Office expenses, viz.:—			
Cleaning	1	3	6
Gas	4	16	6
Rates and taxes	2	11	4
Rent	25	2	8
Postages	104	8	1
Reporting	46	10	6
Salaries, viz.:—			
Secretary	200	0	0
Assistant-secretary	91	0	0
Clerk	22	9	0
Stationery and printing	69	12	3
Sundries	17	0	9
Travelling expenses, viz.:—			
Executive committee	92	1	5
Secretary	30	6	6
Assistant-secretary	4	18	6
Balance carried forward to next account, viz.:—			
Balance at Lloyds, Barnetts & Bosanquets' Bank (Limited)	286	15	4
Ditto in hands of Treasurer	16	0	6
	1,316	13	6

It was moved by Mr. Barclay, seconded by Mr. Chapman, and unanimously resolved:—

That the report of the Finance Committee be received, adopted, and entered on the minutes.

The following report was then read:—

Report of the Urgency Committee.

Your Committee presented a printed interim report to the Executive on April 18, as an annex to the Secretary's circular of April 21, since which date your Committee have held two meetings.

At the first of these, which took place on April 29, your Committee carefully considered the replies received from the Executive to the above-named circular, and the proposed circular to the trade was unanimously passed subject to the insertion of dates, two verbal alterations, and one transposition of a sentence. The following resolutions were also unanimously passed:—

That the Secretary be instructed to issue the special circular as now amended to the wholesale and retail trade.

That the Executive, having approved of the recommendation of this Committee that the Secretary be refunded the expenses consequent upon the issue of his special circular to the trade in January last, the Treasurer be requested to hand to the Secretary the sum of 39*l.* 1*s.* 2*d.* for that purpose.

At the second meeting of your Committee, held on May 20, your Committee considered the replies received from the trade to the circular issued by the officers of the Association on May 6, when the following resolution was unanimously passed, and the Secretary instructed to convene a meeting of the Executive for Wednesday, May 25, to consider the position of the Association:—

That, it having been reported by the Secretary that 1,348 replies have been received in response to the circular issued to the wholesale and retail trade by the officers of the Association on May 6, this Committee is of opinion that the effective working of the Association requires at least 2,000 subscribing members of half a guinea each. They, however, feel that if the trade were thoroughly canvassed that number might be obtained.

The President proposed that the report of the Urgency Committee be received. He apologised for the short notice of that meeting which the members of the Executive had received, remarking that the Urgency Committee thought that the sooner they consulted the Executive the better. When they last met they passed a resolution to the effect that Mr. Haydon should make a canvass of the members of the trade to get money to meet their liabilities, and to carry them on to the end of the financial year. A more unsatisfactory state of things could scarcely have existed. Mr. Haydon, he thought, very loyally took upon himself to disobey their instructions, and issued circulars both to the wholesale and retail members of the trade.

The Secretary: Not disobey.

The President: Well, to interpret in his own manner our instructions.

The Secretary: That is better.

The President, continuing, said the Secretary issued two circulars, the result of which was that sufficient money was subscribed to put them in a sound financial position for the present year. But after that there remained the very important question as to how they were to proceed. It would be remembered that at the last meeting they passed a resolution that in future the annual subscription to the Association should be half a guinea instead of 5*s.*, an alteration which was wise and proper. He had had the pleasure of attending two or three meetings with the view to laying before the Executive some scheme of reorganisation, and having agreed upon that scheme and having got the approval of the Executive, they proceeded to tackle the situation to the best of their ability. He believed they all thought that rather than have an Association that could not speak out its mind and was weakly they had better have no Association at all. If the trade would not support the Association it was no use their endeavouring to go on. If the trade allowed the Association to fall through, upon the trade the responsibility would lie. He contended that every member of the Association had had his full money's worth, and as a proof of that assertion he had it from the Secretary's notes that each member who subscribed 5*s.* cost the society 7*s.* 8*d.*, the

balance being made up by donations. The question now came before them, having obtained sufficient money to pay their way up to the end of the financial year, how they were going to proceed in the future. They had issued circulars to the trade, the result of which was before them. Between 1,350 and 1,360 replies had been received to those circulars, some of them being the result of a personal canvass and after the second circular was sent to the local secretaries, signed by himself, asking them to make extra efforts. He thought they might take it as a basis of agreement that unless 2,000 subscribing members joined—that was, unless their income was 1,000*l.* a year—it was not possible to satisfactorily carry on the work of the Association. That Association, so long as it was an Association, must neither degenerate into a mere assurance society nor into a better class of trades-union. They must pursue their work with the dignity that belonged to an Association of that character. If they agreed with him to the extent they had gone, he thought they would be of his opinion that the resolution passed by the Urgency Committee was worthy of the support of the Executive.

In reply to Mr. Arblaster, the PRESIDENT said he had received several replies to his circular, and with the exception of a few they were all satisfactory.

Mr. GLAISYER at some length explained the circumstances under which he and Mr. Haydon had issued the circular announcing the possible formation of a Chemists' Defence Agency, stating that there was no idea of interfering with the future of the Association. He was of opinion that the answers to the circular were not sufficient to warrant the Executive in continuing the work of reconstruction. If, however, the Committee thought otherwise, so far from there being any contest between Mr. Haydon and himself on the one part and the Association on the other part, they would abandon their projects entirely, and give loyal support to the Committee in endeavouring to make their scheme a success.

In reply to a question, the SECRETARY gave the following statistics, showing the number of promises of support that had been received in response to the officers' circular as far as they had been dissected.

—	No. of Promises Received	No. of Chemists in Kelly's Directory
London	209	1,200
Birmingham	63	182
Hull	13	82
Leeds	16	97
Liverpool	31	231
Manchester	41	235
Nottingham	19	90
Sunderland	12	41
Sheffield	7	103
Scotland	31	780

With regard to the sixty-three promises from Birmingham, he might say before that town was partly canvassed there were only twenty-six promises.

Mr. HOLDSWORTH: Which is about the same proportion as the other towns.

The SECRETARY: Yes.

Mr. BELL spoke of the apathy which characterised chemists in the country towns. They would not take any action unless they thought they would get anything out of it.

Mr. PARKER said there was an uncomfortable feeling abroad that the Association was going to be wound up. One old member, after the receipt of the circular, told him that it was a nice thing for him (the speaker) to be soliciting subscriptions for an Association that was bankrupt and insolvent.

Mr. SYMES said the impression he had formed with regard to Liverpool was that a canvass would bring a large number of members. He was rather inclined to endorse Mr. Parker's statement as to the lugubrious feeling which had gone abroad. The tone of the circular sent out by the Secretary when he was instructed to make a personal canvass showed that the Association was in a bad way. He did not mean to make a sweeping condemnation of that circular, but he thought it was a little premature. That and the subsequent circular urging the necessity of an increased subscription had gone to create the impression that the Association was really a thing of the past. Under these circumstances the replies had been very largely discounted. He was sanguine for the future of the Association. He was willing to join in the consideration of any scheme that might be put forward. If the Society died, there would be a great difficulty in commencing it again. They had now all the machinery in working order, and it was easier to keep it going than to restart such an organisation. At the same time he was not very sanguine of getting voluntary subscriptions every year to the extent which would justify them in continuing.

The SECRETARY said the remarks of the last speaker would, he feared, leave an impression on their minds that his (the Secretary's) circular of January last had been the first means of conveying to the trade the fact that the financial condition of the Association was unsatisfactory. He thought that was a sweeping condemnation of the circular, and a condemnation that it did not merit. He then read from the report of the proceedings of the Executive at their previous meeting, as published in the trade journals prior to the issue of the circular to which Mr. Symes had referred, extracts from speeches of members of the Executive showing that the Association was at the time of that meeting (on January 14 last) unable to meet its liabilities. At the same meeting the Executive passed a resolution authorising him to visit London and other towns to endeavour to raise money to get them out of their difficulties. He visited London; he canvassed the wholesale houses, and by that means raised about 80*l.* The time at his disposal did not allow him to visit the provincial towns, and he had distinctly told the Executive that he could not undertake such a personal canvass. He sent out a circular in his own name, and on his own responsibility. That circular, whatever might have been its demerits, at all events relieved them of their financial difficulties, and they were now in a position to wind up their affairs if they desired to do so with a perfectly clear sheet. Their position now was infinitely better than it was in January last. At that time they had collected subscriptions from the trade for a twelvemonth's work. Five months of that was unexpired, and they were unable to meet their engagements. At present they could carry on the work and pay their way until June 30 next, the termination of the financial year. He did not think it could fairly be argued that the Association had been injuriously affected by the issue of his circular in January last As far as he was personally concerned he certainly should not feel disposed to run an agency against the present Executive of the Association. If they decided to carry on the Association he was prepared, should they desire to retain his services, to act as loyally in their interests in the future as he had done in the past.

Mr. SYMES expressed the opinion that the wholesale members of the trade should not have been appealed to.

Mr. BARCLAY said that if the Secretary had not canvassed the wholesale trade for subscriptions he would most certainly have been told that he ought to have done so.

Mr. ANDREWS asked if, in the event of the Association continuing, it would be possible to reduce their expenses.

The PRESIDENT said they would be able to make but very slight reduction, no matter how economical they were.

Mr. ANDREWS firmly believed that a material increase in the subscriptions might be effected by means of a personal canvass.

Mr. HARRISON said he had not much faith in a canvass. The circular issued placed the affairs of the Society as fairly before the members of the trade as possible. What had been the result? Thirteen hundred odd people had responded. He took it that these represented the number of people who felt there was any necessity for an Association at all. If they went beyond that and canvassed they simply pressed people into the Society. Bearing this in mind, what probability was there that they would renew their subscriptions?

Mr. OWEN JONES (Llanrwst) said he must candidly confess that if a personal canvas were made of the Principality it would rouse the people up. The Welsh people wanted rousing. Many of his fellow tradesmen in Wales had expressed regret at the probability of the Association going out of existence. He considered that a canvass would raise the promises from 1,300 to 2,000.

Mr. HOLDSWORTH reminded the Executive that 2,000 promises did not mean a subscription of one thousand guineas a year. He was certain they would find a great many of those gentlemen who had promised slow in coming

forward. Men would make promises under pressure which they would not fulfil.

Mr. SYMES said that if men doubled their subscriptions they would expect a more liberal expenditure on their behalf. As it was, if a man was attacked the Urgency Committee had been careful in guarding the purse, and if it was a doubtful case they had declined to defend. If a man doubled his subscription he would expect more from the Association.

Mr. WALKER said Mr. Symes had stated the case as it appeared to him. The state of affairs had been placed before the members as plainly as possible in the circulars which had been issued. His opinion was that they should bury the Association as decently as possible.

Mr. BELL felt that the members were making a great mistake in not sustaining the Association in the valuable work it was doing, which it had done in the past and would do in the future. He agreed that it would be difficult to get men to subscribe in the future who now subscribed under pressure only, and expressed the opinion that with an increased subscription the members would expect that more should be done on their behalf. That was a very important aspect of the case, and one they must not lose sight of. He felt exceedingly sorry at the deplorable position of the Association.

In reply to Mr. Mackenzie, the Secretary said that last year 2,216 members paid subscriptions of 5*s*. each to the Association.

Mr. HARRISON: That is less income than our replies represent.

Mr. MACKENZIE said he always thought one of their weak points was that they had not a rule by which the Association could be a working success. They ought to have had a rule by which they should only have defended those who were, or who had been, members of the Association. He thought it was not too late yet, if they should decide to go on, to make a rule to defend only those who were members, and only to defend new members who had been three months on the list from a certain date.

The PRESIDENT said the suggestions of Mr. Mackenzie were embodied in the scheme of reorganisation. With regard to going back to a five-shilling subscription, he felt sure they could not do that after what had taken place.

Mr. HOLDSWORTH said it should not go forth in case the Society went down that it was through defending non-members. Their greatest liabilities were incurred in the cases of members. They had taken up but very few cases of non-members. It might be said, and, doubtless, would be said, in case they broke up that they had got into difficulties through having too wide a sphere of operations.

Mr. SYMES said that on some occasions the Association had defended chemists, whether members or not, on account of the principle involved.

Mr. GLAISYER said that as a rule the cases of non-members and members had occurred on the same day, and they did not want one to run in the front of the other.

The PRESIDENT pointed out the number of replies that had been sent to the circular, and expressed the opinion that if they were to canvass they might get the required number.

Mr. SYMES: Can you work with pressed men?

The PRESIDENT: That is a question to be considered.

Mr. BARCLAY said they all felt that trade just now was in a very depressed condition, and very well knew that institutions which relied on voluntary subscriptions were suffering acutely. They must not, therefore, take too gloomy a view of the situation. He most thoroughly appreciated and supported Mr. Harrison's remarks in regard to the lethargy of members of the trade. The men who had not subscribed would be the first to cry out when the Society had gone down, but if the Association was dissolved the blame would be theirs. It was curious how people who had the best interests of the Society at heart did not respond to the circular. He suggested for their consideration that they should wait until a canvass had been made, fixing a reasonable limit; that the Urgency Committee, in case the response was not beyond a certain number, should proceed either to wind up the Association, or elaborate and reorganise the Association somewhat on the lines proposed in the circular which had been sent out.

After some further discussion Mr. HARRISON (Sunderland) moved—

> That in consequence of the inadequate response to the circular of the Executive Committee of May 6, a special general meeting of the members of the Association be convened at an early date, to consider the expediency of winding up the Association.

Mr. Barclay, he said, would note that in the proposition there was a little further reprieve. Circumstances might arise which would stimulate those who had hitherto been apathetic between then and the date fixed for holding the proposed meeting. If they found that gentlemen had made a sufficient and adequate response to their circular then they might consider that it was not expedient to wind up the Association. It was utterly impossible for them to go on with the material at present at their hands.

Mr. W. JONES (Birmingham) seconded the proposition.

Mr. OWEN JONES (Llanrwst) said no doubt the report of that meeting going forth would stimulate a lot of the members of the trade to increased action.

Mr. PARKER thought it was useless to send out circulars. They had already been sent out warning and entreating people to send in their subscriptions.

Mr. SYMES said he was sorry they had not heard both sides of the question put forward by their Secretary and Solicitor. He further stated that, having heard all that had been said that day, if it were reported he did not think it would affect the membership. If, he said, we do vote for the resolution we appear to turn our back upon those who think that another chance is desirable. If we do not vote for the resolution we do so against our best convictions that the Association will come to an end.

Mr. MACKENZIE (Edinburgh) moved as an amendment—

> That a final circular be issued to all the trade who have not responded to the former one, stating the necessity of an immediate reply as to whether they will join the Association upon the amended lines and a 10*s*. 6*d*. subscription, within seven days.

Mr. JONES (Llanrwst) seconded the amendment.

Upon the amendment being put to the meeting, six voted for and seven against it, three remaining neutral. The resolution was then put and carried by ten votes to three.

After a short discussion it was decided to hold the special general meeting in London on June 17, at 3 P.M.

BANKRUPTCY REPORT.

WM. KELSEA, Chalford Hill, Bisley, Gloucestershire.

ON June 1 the first meeting of creditors of this debtor, described as a surgeon, was held at the London Bankruptcy Court, before Mr. Stewart, Assistant-Receiver. The failure took place on May 14, and the statement of affairs shows liabilities 210*l*. 15*s*., and assets 50*l*. 2*s*. The debtor attributes his bankruptcy to having purchased a practice which turned out a failure. There was no offer, and the Official Receiver (of Gloucester) will wind up the affair. The following are the creditors:—

	£	s.	d.
Cooper, Rev., Ely	40	0	0
Cook, Mr., Hull	16	0	0
Hill & Sons, Southwark	12	19	0
Knight, Mr, Lewisham	10	0	0
Milestone, Mr., Hull	20	0	0
Maw, Till & Co., Hull	19	0	0
Ripley, H., Hampton	12	0	0
Squire & Francis, Coleman Street	20	0	0

Fully Secured.

Queen's Building Society, Hull	350	0	0

NEW COMPANY.

DAVIES'S SELF-POLISHING CLOTH AND SOAP COMPANY (LIMITED).—Capital 20,000*l*., in shares of 1*l*. each. Object, to purchase from Charles Edward Davies an invention for the manufacture of self-polishing cloth and soap.

THE COATED PILL.

IT was a summer's evening,
The chemist's work was done,
And he beside his own shop door
Was basking in the sun;
And by him sported on the flags
A little urchin clothed in rags.

But soon this little ragged boy
Brought something white and round,
Which he from out the gutter depths
In playing there had found.
He came to ask what he had found
That was so small and smooth and round.

The chemist took it from the boy,
Who stood expectant by;
And with a wise shake of the head,
A twinkle in his eye,
"'Tis but a coated pill," said he,
"It's good for man's anatomy.

"I have some in a gallipot,
There's many here about,
And if you'd been an hour before
You'd seen me turn some out;
For many thousand pills," said he,
"Are passed through man's anatomy."

"Please tell me all about the pills,"
The little urchin cries,
And looked into the chemist's face
With wonder-waiting eyes.
"Now tell me all about the pills,
And how they cure poor people's ills."

"The English folk," the chemist said,
"Are fond of pills, no doubt;
But what they take so many for
I cannot well make out.
But everybody says," quoth he,
"They're good for man's anatomy."

"Great gain the maker of them won,
A merchant prince he died."
"Why, 'tis a very curious thing,"
The little urchin cried.
"Nay, nay, my little man," quoth he,
"They're good for man's anatomy."

"And everybody praised the man
Who such a name did win."
"But will the good these pills do last?"
The little boy put in.
"Well, only this I know," said he,
"They're good for man's anatomy."

SODA CARB.

THE UNEXEMPTED ONE.

THERE was a little pharmacist
Named Hezekiah Brown;
His face was pale, his hands were red,
He wore an anxious frown.

Now Hezekiah's knees were weak
With standing night and day;
Nor was his life a "painted show,"
But all of sombre grey.

In Bloomsbury's stern and gloomy halls
His fortune he had tried;
Like whisky with the water in,
He had been *qualified*!

And though this made him weaker still,
Yet still he kept his post,
But had so little *spirit* left
He near gave up the *ghost*!

One Richard was his errand-boy
(Abbreviated Dick);
Few convolutions had his brain,
The *staff* was but a *stick*!

For Richard Joggins (such his name)
Had inclinations strange,
To mix and blunder everything
That came within his *range*.

Thus of his master, Mr. Brown
(When he "put on the pot"),
He went in daily dread and fear
Of "*kitchen* of it 'ot."

Now Richard was not beautiful,
Nor elegant his gait,
His nose turned up, his hair was red,
And in a *shock*-ing state!

One morning Hezekiah Brown
Received a great surprise,
A long blue envelope, with seal
Of most uncommon size!

A summons forthwith to appear
And on a jury sit,
And not to be released until
His Honour shall think fit.

"And if you do not thus appear
(It gave him quite a shock)
They'll dock you of a fine, or else
Will put you in the *dock*!"

Quite *nettled* by this *dock*ument,
He scratched his shining pate;
It puzzled Hezekiah Brown;
It made him *Hezi*-tate!

"But who's to mind the shop?" said he,
In melancholy tone,
"It nearly takes away my *scents*
To think o' Dick alone!"

In *dick*tatorial terms to Dick,
Quoth he, "Your addled head
Can only 'raddle,' understand,
Turps, ochre, and white-lead!

"Now, Joggins, as you count your life
The value of a pin,
Refrain from selling strychnia
Or other medicine!"

* * * *

In high-top hat, and long frock coat,
Forth went our pharmacist.
Then Joggins burst into a grin
And shook his grimy fist:

"Why can't I mix the physic up
As well as ever 'e?
Though if I get dispensing stuff
He may dispense with me!"

* * * *

The court was up; an officer
To each a sum disbursed,
And they dispersed towards their homes,
Brown fearing still *the worst*.

He reached his shop; within the door
There stood a Man in Blue,
Who said to Brown, "My little friend,
I want a word with you!"

Then Brown turned green, and Brown turned white
But went without a fuss,
Because the colour of his mind
Was *puce*-illanimous.

"Come," said that minion of the law,
"And gaze upon thy work!"
Poor Brown, he writhed and wriggled like
An eel upon a fork.

Then Hezekiah *turned* his eyes,
And made them *very round*,
When he beheld a gruesome row
Of corpses on the ground.

* * * *

Puffed up with vain conceit, although
He knew his master's will,
That Dick had served to all who came
A potion or a pill.

So prussic acid, strychnia,
And bean of Calabar,
Dick gave, with calm, impartial hand,
Like liquors at a bar.

And, oh! it was a fearsome thing,
To see those bodies lie
All on the cold kamptulicon,
And staring at the sky.

Those corpses ranged around the shop
(A ghastly sight to see);
They were beyond the help of man
Or electricitee.

For one was pink, and one was blue,
According to the sort
Of poison Dick had given them,
In diabolic sport.

So Mr. Brown was marched to gaol
(Some said it was a shame),
Like *Pestal* (Polish patriot),
A martyr he became.

E. D.

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An analysis of the water having been made in November, 1886, by Professor Wanklyn, M.R.C.S., corresponding member of the Royal Bavarian Academy of Sciences, Professor of Chemistry, a very important discovery has been made, viz., the presence of Free or Elementary Iodine.
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See Advertisement, page 9.

EDITORIAL NOTES.

THE PHARMACEUTICAL COUNCIL.

THE newly-elected Council met for the first time on Wednesday, and, as is usual on such occasions, the meeting was attenuated and exhausting. There have been times when a change in the *personnel* of the Council was a momentous matter. Now that the opposition (if such a thing exists) is fangless, if not muzzled, the advent of two new members with pronounced opinions has only the significance attaching to some minor changes in a cabinet. This cabinet idea is becoming a pet one in the Pharmaceutical Council; there is a manifest desire to pose before Parliament and the public as a united and harmonious representative body striving after the public welfare. This consummation is sought to be attained by processes of withdrawals of inconvenient motions and secret preparations of colourless discussions, which may give a transitory appearance of a pharmaceutical millennium; but the veil is thin, and is sure to burst with internal pressure some day.

For the sixth consecutive year Mr. Carteighe is placed in the President's chair, with, if possible, a more confident vote than before. Last year he had fourteen supporters in a vote of twenty. This year he has fifteen supporters out of a vote of eighteen. There is a feeling that he should be allowed to complete the schemes which he has been mainly instrumental in inaugurating. Especially may be mentioned the curriculum scheme, and the buildings in process of erection, and which are expected to be opened in the autumn, as an examination hall and research laboratories. Probably the members will find it advantageous to retain Mr. Carteighe's services as President, if he will give them, until the whole of the contemplated scheme is completed—that is, until Nos. 15, 16, and 17 Bloomsbury Square form one uniform block. This is a gigantic work, which will probably drain the Society's resources to the uttermost, and any change of directorship would not only shift the responsibility, but might increase the liabilities of the body corporate. At present the liabilities for the research laboratories alone amount to 6,300*l.*, and this does not include the supplementary estimates which contractors are so fond of, nor does it include the outlay which will be required for the purely technical fittings which are so necessary (and so very expensive) for the purposes of examination and research. How much the erection and fittings of the front buildings will cost it would be hard to say, but if five years hence the Society have 5,000*l.* of invested funds they may consider themselves fortunate.

The Council showed no disposition to change its office-bearers. Mr. Gostling is re-elected Vice-President, and Mr. Robbins Treasurer. Mr. Robbins is a careful keeper of the purse, and Mr. Gostling has been a painstaking Vice-President. We should like to see this office change more frequently, however. There are not half a dozen members who could give the time necessary to fulfil the duties of the presidency, but there are more than a dozen who could readily undertake the vice-presidency. There is no reason, indeed, why the office should not be made one of a yearly tenure. The change would be appreciated by country pharmacists, and it might bring about a disposition to make

way for fresh men. The retirement of Messrs. Williams and Borland will be generally regretted. Mr. Williams has been a faithful member of the Society for nearly 20 years, and his service has been marked by an independence of action, which latterly has become refreshing amidst a general acquiescence in all that proceeds from the chair. As one experienced in the procedure of the Council he will be decidedly missed. Mr. Borland is little known on this side of the border, and his tenure of office has been a quiet one. His experience as an examiner and his personal knowledge of the requirements of the everyday chemist have enabled him to take a decided stand on various occasions in the interests of the youth of pharmacy, and for this alone his services have been valuable.

In the course of the proceedings a storm threatened the monotonous harmony. Dr. Symes had given notice of a motion relating to the subject which was introduced at the annual meeting by Mr. F. W. Fletcher, and which is now under discussion in these columns. He proposed that the Boards of Examiners should consider the desirability of not rejecting candidates on examination in one subject only. Immediately he read his resolution there was an evident desire on the part of some members to shunt it, and others, with too eager haste, proposed that the Council should go into committee, so that the discussion might not see the light of day. Dr. Symes and a minority with him very properly objected to this course, and a short but warm discussion, followed by the usual vote in favour of secrecy, was the result. It was notable, however, that seven voted for publicity. Seven is a hopeful number. The majority erred on three counts: First, they played into the hands of their opponents by not accepting Dr. Symes's harmless resolution—if what he aimed at was impracticable the examiners would have been able to prove that it is so, and everybody would be satisfied; secondly, they magnified the importance of the resolution by their eagerness to get it out of the way and by protesting against public discussion; and, thirdly, they showed the slender basis for the curriculum scheme by asserting that the resolution might injuriously affect the prospects of the Pharmacy Bill. There is no doubt that, although Dr. Symes in committee withdrew his resolution, he and his supporters have scored in the eyes of their constituents. The inevitable Jubilee demonstration invaded the business, and the Council resolved upon a loyal address to her Majesty, Jubilee grants to annuitants and others, but not to the little army of casual applicants, who may be more in need of a fillip to their loyalty. Bonuses to the servants were also agreed to. All that is required to bring the Society fully into line is to vote a gold chain of office for the President.

The retirement of a hard-working and zealous officer—Professor Bentley—was signalised by his appointment as Emeritus Professor with a handsome retiring allowance. It was resolved to teach materia medica in the future upon the tutorial principle. This change is an excellent one, but we trust that the work of the students will not be confined to the museum. Some connection is required with the laboratory, both in relation to the microscopic structure of drugs and to their chemical constituents. The report of the assessor of the Scottish examinations, which appears in full in our report, contains some thoughtful paragraphs, to which we hope to refer again.

MILK AND SCARLET FEVER.

At the Royal Institution last Friday evening Dr. Klein, the eminent microbist, submitted a paper of the utmost importance in regard to the etiology of scarlet fever. Not long since Mr. Power, a medical inspector of the Local Government Board, investigated an epidemic of scarlet fever which had occurred in the north of London, and which was traced directly to milk supplied from a certain dairy at Hendon. Very complete evidence was collected, which seemed to negative the possibility of infection of the milk from a human source, or by insanitary conditions, and Mr. Power further proved that the cows which yielded the milk were in a diseased condition, that the first signs of this disease had appeared in cows which had been recently imported from Derbyshire, and that it spread from them to the other cows milked at this Hendon dairy. The disease consisted in the presence of sores on different parts of the skin, with loss of hair in patches, ulcerations on the udder and teats, and a visceral disease, notably of the lungs, liver, kidneys, and spleen, which, although milder in character, very much resembled the visceral lesions occurring in cases of human scarlet fever. By experiment it was shown that the matter of the ulcers of the udder is possessed of infective power, inasmuch as on inoculation into the skin of calves the same ulcers are reproduced; further it was shown that in the ulcers of the cow there existed in large numbers a species of micrococcus which, on being planted on artificial nutritive media, such as are used for the study of bacteria, produces in a few days a crop of micrococci, possessed of very distinct characters by which they are distinguishable from other bacteria. When calves are inoculated from a cultivation of this micrococcus they become after an incubation period affected with a cutaneous and visceral disease the same as the disease of the Hendon cows. Since Mr. Power's investigations Dr. Klein has studied the diseased condition, and his experiments have shown that in the blood and tissues of persons affected with scarlet fever there occurs the same micrococcus as was present in the cow, both being identical in microscopical and in cultural characters. He has also proved that the action of this microbe on animals is exactly the same as the micrococcus found in the Hendon cows. It seems to be fully established, therefore, that this microbe, *micrococcus scarlatinæ*, is the cause of human scarlet fever; that it produces in bovine animals a disease identical with the Hendon disease and human scarlet fever, and that consequently while the cow is susceptible to infection with human scarlet fever, it can in its turn be the source of contagium for the human species. Dr. Klein has found the same microbe in tins of condensed milk, sold under the name of Rose brand. This milk was under suspicion of having produced scarlet fever in a number of persons who had partaken of it. When the microbe of the condensed milk was tested on animals, calves, and mice, it produced the identical disease which was produced by the microbe of human scarlet fever and of the Hendon cows. This Rose brand of condensed milk, Dr. Klein states, is a cheap article, meant for the poorer classes; probably it has not been sufficiently heated in the tins before sealing the latter.

Scientific investigation has, therefore, now made a distinct and very important advance. It is, of course, well known that scarlet fever, as well as diphtheria and typhoid fever epidemics, have been frequently spread by means of the milk supply. The typhoid microbes, indeed, as far as is known, have not been conveyed by the milk itself, but by the water added to it, or, as the milkmen themselves say, by the water used for washing out the cans. It has been hitherto assumed that scarlet fever has been conveyed in milk only by some personal contact from persons who had had the disease or who had been with others who had been so infected. The knowledge now acquired is to the effect that cows themselves suffer from a mild disease identical with scarlet fever, and communicable by their milk to the human subject. This disease, although hitherto unnoticed by veterinary practi-

tioners, can be easily detected, and is, no doubt, the source of a large proportion of the cases of scarlet fever in this country. From that disease alone an average of 854 persons per million living in the United Kingdom die annually, and some twelve times as many go through the illness. When we remember that many of these deaths, together with, perhaps, most of the typhoid, and probably some of the diphtheria epidemics, are due to carelessness or ignorance at the dairies, the conclusion that some efficient system of control of our milk supply is called for seems inevitable. Out of consideration for public safety the Legislature has rightly shown itself anxious in regard to the sale of poisons; but for hundreds slain by poisons, tens of thousands die from unwholesome milk, and a proper system of official supervision of the milk trade is therefore one of the most urgent of hygienic requirements.

THE TRADE ASSOCIATION.

SOME shade of healthy difference of opinion seems to have manifested itself in the usually too unanimous counsels of the Executive Committee of the Chemists and Druggists' Trade Association. On the occasion of their last meeting, called to consider whether there should be a future for the institution, or whether annihilation should complete its career, it appeared that in reply to the circular which had been issued some 1,350 replies had been received, containing so many promises to subscribe half a guinea annually to maintain the Association in working order. It is evident that the income derivable from that number of subscribers would barely suffice to keep the Association afloat, and would certainly not enable it to rule the waves of the sea of pharmacy in the event of anything like a storm arising. The view was put forward that this body of 1,350 subscribers could easily be increased to 2,000 or more by vigorous canvassing, and this was generally agreed with; but, on the other hand, it was pointed out that the additional men would be pressed soldiers and not volunteers, and that the income extracted from them could not be relied upon for a permanency. We do not wonder that many members of the executive are tired of working in constant fear of bankruptcy, and it is not surprising that the majority should have resolved to recommend a decent winding-up unless some very strong evidence of support should be forthcoming before the general meeting. It appears that the secretary and solicitor of the Association are willing to continue to serve it if it can be reorganised on a sound basis, but we gather from the report that failing this they are disposed to offer their experience to the trade in another and more commercial form.

East African Drugs in Vienna.

The Oriental Museum in Vienna has recently, been enriched by a large collection of East African drugs and dyeing materials, specimens of which have been collected on the spot by Mr. Rakoosky von Nagyrako, the Austrian Vice-Consul in East Africa. The object of the collection is, of course, to stimulate Austrian trade with the countries in question and with this purpose in view the collector has appended to each specimen a short note, setting forth the botanical origin and the commercial uses of the article. The collection includes specimens of nearly all the well-known produce indigenous to the region between the Gulf of Aden and the Zambezi, such as calumba, myrrh, cloves, copal, indiarubber, myrabolans, copra, sesame seed, earth-nuts, &c.; with a few samples of rarer drugs; but the information added to the latter is too vague to be of much practical use. To one sample, for instance, the following extraordinary explanation is appended: "*Teo-Broma* is the name given by the inhabitants of the Sucheli (?) coast to a most peculiar substance, somewhat resembling spermaceti in appearance, and which, they say, is derived from fishes. This remarkable product is used by the natives as an ointment for wounds, in order to accelerate the healing process, and it is similarly applied in elephantiasis, to check the spread of the disease." Unfortunately we have not been able to inspect a sample of this "fishy" article, and are therefore unable to say whether it is simply cocoa-butter prepared in a crude way by the natives or a hitherto unknown substance.

***

Mr. Holloway's Mind.

The much-talked of case in reference to the late Mr. Holloway's will was decided in the Probate Court on Friday of last week. The action was brought by Mrs. Caroline Young, a sister of the late famous pill and ointment maker, who undertook to prove that when Mr. Holloway made his last will and testament his mind was so far enfeebled as to have incapacitated him for the duty; and, moreover, that at the time he was so completely under the influence of his deceased wife's relatives as to have made the will invalid. Mr. Holloway was eighty-three years of age at the time of his death. His wife died eight years before him, and to her memory he had dedicated a large proportion of his vast fortune. The institution for the education of women is expressly erected in memory of her; and to this and to the other establishment for the treatment of lunatics he had during his lifetime devoted more than a million sterling. He left about 800,000*l.*, Miss Driver, his wife's sister, being the sole legatee. Her sister and brother-in-law, Mrs. and Mr. George Martin, with their daughter, resided with the late Mr. Holloway; another brother, Mr. Henry Driver, was the manager of the business, and both Messrs. Martin and Driver had, since the testator's death, assumed the name of Holloway. Miss Driver had handed over the business to them, and had given them 20,000*l.* to carry it on. The business was said to be worth 15,000*l.* or 16,000*l.* a year, and Mr. Holloway's sister and next-of-kin felt that she had been supplanted unfairly. It was stated that Miss Driver had presented to Mrs. Young the sum of 5,000*l.*, and to her and to another sister of Mr. Holloway's she had continued an allowance of 150*l.* a year which they had had for some years from their brother. Mr. Drew, a medical practitioner at Egham, who had had the distinguished honour of attending the great world-healer, testified that the old gentleman suffered from chronic congestion of the lungs and consequent weakness of the heart, but that he was perfectly sound mentally. There was evidently no ground whatever for legal interference, and judgment was given in favour of the will. Counsel for the legatee declined to ask for costs, and intimated that it was Miss Driver's intention to continue the allowances to both Mr. Holloway's sisters as heretofore.

***

A Long Life Machine

The late Mr. J. A. Blake, M.P. for Carlow (writes one of the Irish members in *United Ireland*), had been going about amongst those of his colleagues whose health he did not consider very robust, making them a present of a new invention for prolonging life, as he put it, in which he had great faith. It was a machine by which the tar of the larches and pines of Arcachon, whose antiseptic properties are so famous, could be breathed in one's bedroom. He had one of these machines waiting for Mr. Parnell in the library recently, when he came down to the House of Commons. Another he gave to John Dillon, with the laughing remark, "When they are putting up your statue, Dillon, they'll write under it 'Dillon, the saviour of his country,' but I want them to write under that 'Blake, the saviour of Dillon.'"

***

Telephonism

Next to discovering a new remedy the average American physician delights in discovering a new disease. One of these lunatics professes to have made a terrible discovery about the telephone. He declares—and he backs his statement by figures—that the mortality among subscribers to the telephone is three times greater than among people who do not avail themselves of its dangerous delights. The diseases most frequently produced by the constant use of the instrument are cerebral, pulmonary, and nervous, which is much like saying that persons may get headache by too close attention to anything.

FRENCH PHARMACEUTICAL NEWS.

(*From our Paris Correspondent.*)

Dr. Spencer Wells, of London, was on May 31 elected a corresponding member of the Academy of Medicine, for the section of medical pathology.

The Congress of French Scientific Societies held their opening meeting, on May 31, at the Sorbonne. The time was occupied with the work of organising, forming committees, &c. The Congress is to last five days, the final sitting being set for June 4, when Minister Spuller, the successor of Professor Berthelot, will preside at the closing ceremonies.

A Fatal Mistake.—M. Millioz, a pharmacist at Pont-de-Beauvoisin (Savoie), recently dispensed a potion, in which he dissolved some strychnine by mistake for a harmless drug. The patient, a married lady, having died, the pharmacist was prosecuted, and has just been sentenced to three months' imprisonment, 100 francs fine, and 100 francs damages.

Bibulous Druggists.—The firm of Plazanet & Cie., wholesale dealers in chemicals, 5 Rue Chapon, have in their building a cellar separated by a thin wood partition from a vault occupied by a neighbour for storing wine. Many bottles having disappeared, the neighbour set a watch, caught the young men employed by the druggist, and had them all arrested, five in number. The firm, thus deprived of all its hands, interceded with the neighbour, who consented to look upon the affair as a boyish prank, and had the young men discharged, upon their promising to pay for the liquid purloined.

Félix-Stanislas Martin died on May 30 at his residence in Paris. He was born at Issoudun (Indre) in 1806, and graduated, in 1833, at the Paris College of Pharmacy. For years he conducted a pharmacy in the Rue des Jeuneurs, and almost to his last day remained interested in pharmaceutical subjects. He was a most active member of the Paris Society of Pharmacy, at one time its president, and always one of its most prolific contributors. It is almost impossible to open a pharmaceutical periodical, published at any time during the last fifty years, without finding one interesting communication, or several, by Stanislas Martin, in reference to some subject of materia medica or practical pharmacy. Even as recently as last February he made a verbal communication to the society, accompanied with various specimens of exotic drugs and a manuscript pharmaceutical formulary of the thirteenth century. M. Martin was also at one time editor of the *Bulletin de Thérapeutique*, and published several small works, among which a very curious one, on the physiology of alimentary substances, and their physical, chemical, hygienic, and poetical history. The descriptions, interspersed with quotations from French and Latin poets, have a peculiar effect. M. Stanislas Martin was one of the few men of whom it may be said he had many friends and not one enemy. He was a member of the Colleges of Pharmacy of Philadelphia, Chicago, and Genoa.

EXHIBITION OF THE FRENCH CHEMICAL SOCIETY.

The French Chemical Society held their annual exhibition on May 29, 30, and 31, at the usual place—the library of the Arts et Métiers—left at their disposal during the Pentecost holidays. It is unfortunate that an exposition in many respects so interesting should attract so few visitors. But the managers have only themselves to blame for the limited attendance. Instead of sending announcements to the press (which would have willingly given them free notices), they have acted as if they intended to keep the matter a profound secret from the public. As a consequence, many who would have been glad to visit the exhibition, being left in ignorance, have kept away, and the main attendance has been composed of those directly interested—the members of the Chemical Society and the members of the scientific societies now holding their annual session at the Sorbonne.

The first exhibit seen on entering was that of

The Paris Faculty of Medicine (laboratory directed by Drs. Cazeneuve and Hugouneng).—Fine specimens of crystallised pterocarpine and homopterocarpine (Billault); various camphor derivatives, such as nitro-camphoric acid, and its combinations with potassa, soda, ammonia, lime, barium, zinc, copper, iron, lead, and quinine; also a pressure digestor, for the estimation of urea, in which, by heating for 20 minutes 10 cubic centimetres (2½ drachms) of urine to 180° Cent. (356° Fahr.), the urea may be calculated as carbonate of ammonia (Cazeneuve).

Paris Faculty of Sciences.—Methyl derivatives (Friedel and Crafts); acetylene derivatives (Combes); allyl and capryl derivatives (Béhal); benzyl benzoates (Grimer); benzoyl chloride (Bigot); artificial minerals (Gorgeu).

The School of Arts et Métiers.—Alcoholic derivatives of gold and phosphorus chlorides (Lindet); ammoniocupric compounds (Saglier).

The Caen Faculty of Sciences.—(Ditte) a fine set of specimens, thirty-two in number, all consisting of vanadium compounds, vanadic acid, and combinations with ammonia, soda, lithia, potassia, &c.

The Museum, better known as Jardin des Plantes—Specimens of carrotine, as extracted from the carrot, and as separated by a new process from the colouring matter of the spinach, grass, horse chestnut leaves, &c. (A. Arnaud). Both kinds consist of very fine crystals of a hue that is emphatically the purest carrot-red. Vegetable cholesterine from the carrot (A. Arnaud); some forty of the specimens of metallic selenides, selenites and seleniates, and selenium alums (Fabre).

The Louvain University.—Acetic acid and aceto-nitrile made by synthesis, with a great many of their derivatives; malonic, succinic, and pyrotartric nitrile, &c.

The Lisle Faculty of Sciences.—A complete collection of the products obtained from sheep wool, from the raw concentrated washings down to lanoline, and the various isolated principles, such as the mineral salts and acetic, oxalic, benzoic, valerianic, succinic, caproic, butylic, propicnic, and oxyoleic acids, &c.

Ch. Feil had in a glass case interesting specimens of artificial precious stones, crystallised or sublimed at high temperatures, among which were corundum, spenelle, and rubies of various sorts in small but neat crystals.

Manufacturers were, of course, well represented, and made in some instances inviting and instructive displays. The Société Centrale de Produits Chimiques (formerly Rousseau), besides a good assortment of chemists' appliances, had a variety of phenyl derivatives, terpinol, crystallised terpine, and pure selenium in plates marked 235f. a kilo (about 4 guineas a pound); also a very complete collection of artificial dyestuffs, classified according to their chemical parentage, the amine derivatives being apart from the anthracene, the hydrocarbides from the azoic or sulphonic, &c.

Paul Rousseau & Cie. had also an attractive table covered with chemical apparatus; collections of characteristic crystals selected for comparison in crystallographic studies, and chemical specimens for medical students; rare chemicals, and portable photographer's outfits.

Fontaine, Billault & Cie. showed many compounds of platinum, nickel, &c., also a fine specimen of crystallised monocalcic phosphate. Durand & Huguenin made a display of coal-tar dyestuffs; Schlumberger & Cerchel of artificial salicylic acid and salicylates, including the ethyl and the methyl salicylates.

Viennot, of Ivry-port, and Armet de Lisle of Paris, exhibited assorted quinine salts, among which the newly-recommended muriate, and some chemically pure sulphate, so light in appearance as to upset all the doctrines of Dr. de Vrij, if the claim to purity can be sustained.

Finally, G. de Laire had an interesting line of coniferin derivatives, including vanillin, &c., and some one had on exhibition a self-regulating water-bath for keeping indefinitely any given temperature. The apparatus, designed by M. Loviton, is very simple, and works by means of a movable iron wire kept above the mercury of a thermometer sunk in the water-bath. When the column of quicksilver rises high enough to touch the iron an electric current is established, which turns down the gas. When the two metals are no longer in contact a spring turns the gas on. The apparatus,

set for 60° C., had been at work all the morning, and a difference of one-fourth of a degree was enough to start or interrupt the electric current.

THE PARIS PHARMACEUTICAL SOCIETY.

THE usual monthly meeting of the Society (June 1) began later than customary, owing to the approaching vacation time and the coincidence of a Board meeting of the French Pharmaceutical Association now holding their annual session. Some of the officers, besides, were absent, attending the funeral of M. Stanislas Martin, the late member, whose death is noticed elsewhere.

On opening the meeting President Desnoix paid a deserved tribute to M. Stanislas Martin, adding that, unfortunately, there is another prominent member whose life is despaired of; and Secretary Planchon read the allocution which he had delivered, barely an hour before, at the grave of their late associate.

M. Vigier spoke informally about *anemone* and *anemonine*, saying that according to his experience the whole chemical and physiological history of the drug needs overhauling, and should be made again. The active principle of anemone being volatile, only preparations made with the fresh fruit or leaves have any virtue; those prepared from the dried plant are inert, or nearly so. As regards the crystalline product sold as anemonine, he considers it almost inert. On being asked what he meant by "inert," he replied he had taken in one day 10 centigrammes (1½ grain) of the stuff without feeling any effect; so that after all the inertness spoken of must be understood in a comparative sense.

M. Juilliard related some trouble he had had with solutions of salicylate of lithia. After being prepared a short time the liquor turns brown, and finally black. Similar solutions made by other pharmacists he found to keep colour for a longer time, and he thought the better preserving quality was owing to a substitution in whole or in part of soda for lithia in the preparation. But in the absence of more definite data—he had only used the flame test—the discussion ended without a conclusion being arrived at.

M. Léger added a few remarks to his communication respecting casein emulsions made at the previous meeting. He said that to completely cover the animal smell of the saccharated casein in powder 1 drop of neroli is quite sufficient for ½ lb. of product. Besides, even without this addition the casein imparts no smell to the emulsions made with it, and no other taste than the natural milk savour.

The meeting, after transacting routine society business, adjourned to September next.

Obituary.

BEAUMONT.—On May 30, at her residence, Albion Road, Stoke Newington, Maria Beaumont, daughter of the late Abraham Beaumont, of Stamford Hill, and 300 High Holborn. Aged 66. Abraham Beaumont was one of the apprentices of Thomas Corbyn, and subsequently one of the principals when the firm was styled Corbyn, Messer, Stacey & Beaumont.

BISHOP.—On May 19, Mr. Thomas Noxon Bishop, chemist and druggist, Cradley Heath, Staffordshire. Aged 79 years.

ELLIOTT.—On May 15, Mr. Henry Elliott, chemist and druggist, Kimberley, Notts. Aged 32 years.

HARDING.—On April 30, Mr. James John Harding, pharmaceutical chemist, late of Sudbury. Aged 61 years.

LOMAS.—On May 4, Mr. John Woodward Lomas, chemist and druggist, High Street, Burton-on-Trent. Aged 72 years.

MASKERY.—On May 30, Mr. Samuel Maskery, pharmaceutical chemist, West Derby, Liverpool. Aged 69 years. Mr. Maskery was born at Preston, and was at first educated for the medical profession, but, preferring pharmacy, he established a business at West Derby in 1840, which he has carried on ever since. He was probably the father of the trade in the Liverpool district, and by his fellow chemists and co-citizens was highly respected.

PHILLIPS.—On May 31, Thomas Henry Phillips, of Arundel House, Belmont Park, Lee, S.E., and 51 Lime Street, E.C. Mr. Phillips was senior partner in the firm of Messrs. Jenkin & Phillips, drug brokers, of 51 Lime Street, E.C., and had been engaged in business as a broker for a great many years, first in partnership with his uncle, the late Mr. Jenkin, and afterwards on his own account. He was familiar to all Mincing Lane merchants and a regular attendant on 'Change, and no person connected with the drug trade was more highly respected than the deceased gentleman. Mr. Phillips, though he only attained 58 years of age, was one of the few remaining brokers who adhered to the old methods of business in all respects. He leaves a widow and a numerous family, two of his sons having for several years been connected with the business in Lime Street. The younger of these (Mr. Walter Phillips) was admitted a partner in the firm only a few days before his father's death, and will probably continue the business.

RAIMES.—Mr. John Fortune Raimes, of Messrs. Raimes & Co., wholesale druggists, was found dead on the steps leading up to his house early on Friday morning, May 27. He had been subject to occasional attacks of faintness, and it is supposed that he had been overtaken by one of these, and in the absence of assistance had succumbed.

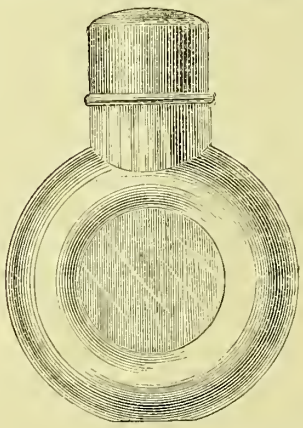
SANDERS.—On April 14, Mr. William Sanders, chemist and druggist, Darlington Street, Wolverhampton. Aged 75 years.

SHEARER.—On May 22, at Edinburgh, Mr. John Shearer, chemist and druggist, Kelso. Aged 36 years.

STEED.—On May 8, Mr. Robert Owen Steed, chemist and druggist, Wandsworth Road, S.W. Aged 42 years.

Trade Notes.

MESSRS. E. A. HEARN & Co., of Kingsland, have brought out a remarkably cheap line of watch-shaped smelling bottles made in white or variously coloured glass, with a nickel



screw-top fitted with cork washers. The bottles are of exactly the size of the engraving.

THE LIEBIG'S EXTRACT OF MEAT COMPANY (LIMITED) have issued their twenty-first annual report, which shows a balance of profit for the year amounting to 94,790*l.* 12*s.* 2*d.* Out of this an interim dividend of 2½ per cent. was paid in February last, and the directors now propose to pay a dividend of 10 per cent., equal to 2*l.* per share, being, together with the interim dividend, equivalent to interest at the rate of 6 per cent. per annum, and a bonus of 6½ per cent. per annum, both free of income tax. They also carry 20,000*l.* to the reserve fund, and pay percentage to Mr. C. H. Croker, manager at Fray Bentos, 1,179*l.*, and to the European directors and River Plate local directors 14 per cent., 8,253*l.* 0*s.* 3*d.*, leaving a sum of 5,358*l.* 11*s.* 11*d.* to carry forward to profit and loss new account.

Trade Report.

Note to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 Cannon Street, E.C., June 2.

QUIETNESS still prevails in the Mincing Lane markets, and several of the usual public sales have not been held this week in consequence of the holidays. The drug auctions to-day were also rather short, and characterised by a very languid feeling. Mr. William Hodgkinson, in a few words, referred to the loss which the drug trade has experienced in Mr. T. H. Phillips, the senior partner in Messrs. Jenkin & Phillips's firm, and to whose death we allude elsewhere in our columns. Mr. Dalton also expressed the deep regret of the members of the drug trade at the sad event, and their sympathy with the family of the deceased gentleman.

Very few alterations have occurred in the position of the market. *Cardamoms* are a little cheaper, and the demand for *Cape aloes* has fallen off. *Balsams* remain neglected, while oils of *Star anise* and of *Cassia* have not been able to maintain the recent advance. *Calumba*, *Cubebs*, and *Japan wax* are easy. A shipment of *Ipecacuanha* has come to hand, and the opinion is entertained that lower rates will ere long prevail. *Honey* of fine quality is getting somewhat scarce, and *Beeswax* is extremely firm. The *Neroli* crop threatens to be a short one, and *Saffron* is also rising in value. In *Quicksilver* and *Quinine* no change has occurred; *Citric* and *Tartaric acids* likewise remain very quiet. *Morphia* is very firm. An early advance in *Permanganate of potash* is thought to be quite possible. *Turpentine*, as well as *Linseed*, *Cottonseed*, and *Rape oils*, have advanced, and there is a steadier feeling for *Cod-liver*, *Olive*, and *Ceylon cocoanut* oils.

Acid (Citric) remains quiet at 1*s.* 7¾*d.* per lb. on the spot and for early delivery.

Acid (Tartaric) unchanged, at 1*s.* 6⅛*d.* for *foreign* and 1*s.* 6⅝*d.* for *English* brands.

Aloes.—In to-day's drug sales 43 gourds *Barbadoes* aloes were offered, and partly sold at 77*s.* 6*d.* per cwt. for good, and 47*s.* 6*d.* for indifferent quality. The demand for *Cape* aloes has abated considerably, and only a few lots were sold at 24*s.* per cwt. for fair, partly drossy. Good pale *Curaçao* sold at 5*l.* to 5*l.* 2*s.* 6*d.*; dark livery at 39*s.*, and very common at 12*s.* per cwt. *East Indian* aloes continue to arrive on a liberal scale, but we understand that privately there is a good demand for this class.

Ambergris.—Two tins common stuff were offered and bought in at 30*s.* per oz., much more than they are worth.

Anise.—Of 27 packages *China star anise*, imported *viâ* Hamburg, 10 sold at 75*s.* per cwt.

Annatto remains cheap. Fifty-seven bags *seed* from Ceylon, dark to fair, but damp, realised 2*d.* to 2¼*d.* per lb. Fine bright *Pará* roll is held at 1*s.* 9*d.* per lb., but at auction that price was not obtainable.

Argol.—Nineteen bags from the *Cape* are held at 75*s.* to 85*s.* for pink to grey, rather dusty.

Arrowroot.—Further considerable arrivals of the new crop of St. Vincent arrowroot have taken place.

Balsams.—From Liverpool a fair demand for *Copaiba* is reported, and on our market the article remains firm, but apparently without much business. Good *Peruvian* balsam can be bought at 4*s.* 9*d.* per lb. Four barrels *Storax* were bought in at 50*s.* per cwt. *Tolu* remains quiet at 1*s.* 5*d.* to 1*s.* 6*d.* per lb.

Buchu remains unaltered. A few lots changed hands at 3½*d.* per lb. for greenish round leaves, rather stalky, the same price being refused for a similar lot.

Calumba.—181 bags sold at very low rates, dull, mixed with a few yellow pieces at 15*s.* 6*d.*, about 1*s.* 6*d.* below valuation, dark sea-damaged at 12*s.* 6*d.* to 13*s.*, and ordinary mouldy, containing a few brighter pieces, at 8*s.* to 10*s.* 6*d.*, the latter parcel without reserve.

Camphor (Crude) remains quiet with little business passing. The quotation for *Japan* camphor is 66*s.* per cwt. Hong Kong advices state that the market for Japan camphor is quiet but firm, with a fair demand for India, and a stock of about 300 piculs held at $10.50 per picul.

Canella Alba.—10 bales, good pale colour, one-third bold quill, were bought in at 25*s.* per cwt.

Cannabis Indica remains neglected, dusty brown tops, partly stalky, being nominally bought in at 3*d.* to 3½*d.* per lb.

Cantharides.—It is stated that holders of *Russian* flies show more anxiety to sell, a good crop being anticipated. In auction 2 casks were bought in over value at 7*s.* per lb. Ordinary *Chinese* beetles are limited at 2*s.* 6*d.* per lb., an offer of 2*s.* being declined for one lot.

Cardamoms.—Of 194 cases offered in to-day's sale, 111 were sold with but little spirit and at a reduction of about 2*d.* per lb. in most instances. The demand was entirely confined to *Ceylon-Malabar* cardamoms, the small parcels *Mangalore* and true *Malabar* which were offered not even receiving an offer. The exports from Ceylon from October 1, 1886, to May 5, 1887, were 231,579 lbs., against 173,540 lbs. for the same period of 1885–86, and 100,021 lbs. for 1884–85.

The following prices were paid at the sales:—*Ceylon-Malabar*, good smooth pale medium to bold plump, and long 2*s.* to 2*s.* 1*d.*, small to medium 1*s.* 10*d.* to 1*s.* 11*d.*, very pale bleached medium plump 1*s.* 8*d.*, good yellowish medium to bold partly split 1*s.* 8*d.*, long medium sized, imperfectly cured 1*s.* 7*d.*, small to medium brownish partly country damaged 1*s.* 4*d.* to 1*s.* 6*d.*, small brownish and dull coated, country damaged 1*s.* 3*d.*, small split yellow 1*s.* 2*d.*, yellow rather thick in skin 1*s.*, small pale 11½*d.*, very small greenish 5*d.* *Seeds* sold at 1*s.* 4*d.* to 1*s.* 6*d.* per lb. Our stock on May 31 was 1,045 packages, larger than at any corresponding date during the last 6 years, but the deliveries during the five months of the year are also in excess of previous similar periods.

Cascarilla.—85 packages were offered, and 30 disposed of; good partly silvery quill mixed with dust at the full rate of 29*s.* to 30*s.* per cwt.; while thin brown sea damaged cascarilla fetched 20*s.* to 23*s.*

Cassia Fistula.—One hundred and seventy-four bags, nearly all West Indian, were placed in sale and mostly disposed of at a decline, viz., 19*s.* to 22*s.* 6*d.* per cwt. The quality was sound and fresh, but the pods partly thin.

Cassia Lignea.—At Canton, latest mail advices say, the price has experienced a further fall, and a good deal of business took place at the reduced quotation. The stock now numbers some 6,000 piculs, and is held at $6.10 per picul. On April 21 the total shipments of cassia lignea from Canton during the season 1886–87 amounted to 65,468 piculs, against 45,504 piculs in the corresponding period of 1885–86.

Chamomiles.—Ten bales small yellow double flowers, of rather faint aroma, imported from the Continent, sold very cheaply at 8*s.* per cwt., subject to approval.

Cinchona.— In to-day's sale a good supply of South American bark was offered. Several lots *crown bark*, fair to good quill, brown to silvery, sold at 8½*d.* to 1*s.* 10*d.* per lb., *Loxa* at 1*s.* 6*d.* Of *red bark* four bales good coloured soft bark, very dusty, were bought in at 4*s.* 3*d.* per lb. A parcel of good bold thick bark, somewhat hard, and containing a good deal of outer bark, is held at 10*s.* per lb. High-class red bark is extremely scarce, and as much as 14*s.* per lb. is paid for really fine lots. At the public sales held at Colombo on May 5 a slight advance was established. The shipments from Ceylon, as compared with last season, show a reduction, but it is quite possible that this will be of a temporary nature, as it appears that the arrivals at Colombo from the interior are still very heavy. The following are the latest figures re-

lating to the Ceylon exports:—October 1, 1886, to May 5, 1887, 8,862,534 lbs.; same period 1885–86, 9,055,039 lbs.; ditto, 1884–85, 5,844,776 lbs.

A Java cinchona planter of high standing, who has recently made a tour through Ceylon to investigate the condition and prospects of the cinchona cultivation in that island, gives it as his opinion that the large exports from Ceylon will be played out in the course of two or three years, when Java planters will be fully coming on the market with their barks, of which one million lbs. are equal to several millions from Ceylon, so far as alkaloidal richness is concerned. The Ceylon cinchona owners therefore stand between two fires: to harvest before 1889–90 will be a necessity for them, and yet by so doing freely the market is likely to be kept in its present depressed condition. The Dutch Indian planter is also of opinion that the area under cinchona cultivation in Java is generally under-estimated, and that for general vigour and beauty of growth the plantations in Western and Southern Java are unrivalled. Java planters have discarded all inferior varieties of cinchona, and give their attention solely to the better kinds of *Calisaya*, more especially *Ledgeriana*. *C. Officinalis* is almost unknown with them; whereas in the climate and soil of Ceylon this hardy species, and its hybrid *Robusta*, is the most successful. The prospects of cinchona planting in India do not appear by any means brilliant, for authorities well able to judge believe that, apart from the harvest in the Government gardens, the private plantations in India are not likely for some time to yield a total output exceeding 1,000,000 lbs. per year. The bulk of the Government crop, in the northern plantations at any rate, is employed locally in the manufacture of febrifuge.

Civet.—Twenty-four horns civet, including some of very good quality indeed, were offered, but no sales effected, at auction. 7*s.* 6*d.* per oz. is the price asked.

Civet Pods.—Under this name a tin of small yellow-haired pods, imported "from Shanghai or Penang," as the broker somewhat vaguely put it, were offered and taken out, 1*s.* 1*d.* per oz. being refused. So far as can be ascertained the article has never before been offered in drug sale.

Coca Leaves.—Two bales very ordinary damaged *Huanoco* sold at 5½*d.* per lb. Good qualities seem to be rather scarce.

Copper (Sulphate) quiet but steady at the last quotation of 13*l.* 17*s.* 6*d.* for firsts.

Cubebs.—Lower prices would now be accepted, the article being rather more plentiful and the new crop due ere long. What is offering here is mostly of a very mixed character, and in to-day's sale one lot at least out of the 30 bags offered was largely mixed with spurious berries. Genuine but stalky and dusty cubebs are held at 18*l.* to 20*l.* With regard to the cultivation of cubebs in Ceylon, the planters in that island do not apparently take kindly to the suggestion. In answer to a recent article in this journal, pointing out that it might pay cultivators in Ceylon to grow cubebs, a local planter writes to the *Trop. Agric.* that some years ago he resolved to do so, and got plants from the Royal Botanical Gardens. They grow well and fruit, but do not bear the kind of fruit that books say they should, although the director of the gardens declares them to be genuine cubebs.

Dragonsblood is neglected. No sales were effected to-day. 7*l.* per cwt. is asked for somewhat seedy cake of good bright colour.

Gamboge is still in good request, but holders ask high prices for good grades, and out of the 53 cases offered to-day only 12 were sold, at 10*l.* 10*s.* for broken, slightly blocky pipe, rather red and drossy fracture, 10*l.* 2*s.* 6*d.* for darker ditto, 9*l.* 17*s.* 6*d.* for partly very small pipe, dull in colour, and from 9*l.* to 8*l.* 15*s.* for pickings. Good bright, partly blocky pipe is held at 11*l.* 10*s.* per cwt.

Guarana.—About 600 lbs. of good quality were offered in the drug sales, but bought in at 4*s.* 6*d.* per lb., although less would very likely be taken.

Guinea Grains.—In sale 30 bags were offered and bought in. 17*s.* is the price. At Liverpool there is a good demand, and 16*s.* to 17*s.* per. cwt. is now quoted, but sales have been made rather below that figure.

Gum Ammoniacum.—Nine cases good loose drop, mostly small, but containing several bold pieces, were bought in at 40*s.* per cwt. The deliveries of this article have much exceeded the arrivals, and our stock is now reduced to 166 packages.

Gum Anime.—At the last public sales only 35 cases were offered, mostly consisting of *Zanzibar* anime, a variety which is not in much request at present. Only a few lots of this description were sold, red and dark mixed at 7*l.* 7*s.* 6*d.*; bean and pea, 6*l.* 10*s.*; pickings and siftings, down to 45*s.* per cwt. *Demerara* anime sells well at fairly steady prices, medium to bold yellow, mixed with red, mostly scraped, at 7*l.* 10*s.*; partly scraped dark and small mixed, 5*l.* 5*s.* to 4*l.* 10*s.* per cwt.

Gum Arabic.—*Australian* is in good supply, and at the last public sales only the finest qualities maintained their value. To-day the very high price of 90*s.* per cwt. was paid for a lot of fine clean bold drop, mixed with dust. Fair qualities, rather rough and woody, have sold down to 60*s.* per cwt. Fair but rather dusty *Turkey sorts* sold at 11*l.* 5*s.* to 11*l.* 17*s.* 6*d.* per cwt. to-day. For *Gehzirah* and *Talca* gums 70*s.* is asked, although business has been transacted at 65*s.* per cwt. Fine selected white *Cape* gum realised the extreme price of 11*l.* at the last gum sales. At Liverpool there has been a somewhat better demand for *Turkey Sorts*; but the buyers have merely supplied their pressing requirements at 200*s.* to 260*s.* per cwt., according to quality. In *Ghezirah*, the reduced figures having attracted some attention, about 90 serons have been sold at 65*s.* to 68*s.* 6*d.* per cwt., holders displaying rather more firmness at the close. *Amrad* is slow of sale, and only a few serons have moved off at 45*s.* to 90*s.* per cwt. for common to good quality. *Senegal* meets with very little inquiry, and is held at 122*s.* 6*d.* to 124*s.* per cwt.

Gum Benjamin.—Over 100 cases, including a large proportion of fine *Siam* gum, were offered at to-day's drug sales, but not a single parcel was sold. Owners nominally bought in at the previous quotations.

Gum Cowrie.—At the last public sales the quantity catalogued was comparatively small, numbering only 933 cases, about one-half of which were disposed of, in many instances at a slight reduction in value, especially pronounced in the case of middling qualities. The following prices were paid: Selected at 7*l.* 17*s.* 6*d.*, transparent 13*l.*, fine bold well scraped to good middling 93*s.* to 75*s.*, middling half scraped 65*s.* to 68*s.*, pickings and low soft 54*s.* to 58*s.* Good to very common brown 66*s.* to 45*s.* Chips 60*s.* to 40*s.*

Gum Damar is quiet, with sales, at the last public auction, of fair to middling rather dusty *Singapore* at 59*s.* 6*d.* to 53*s.* 6*d.*, and pale but small *Batavia* at 88*s.* per cwt., the latter without reserve.

Gum Mastic.—Chian has been sold at 2*s.* 4*d.* per lb. in small lots.

Gum Myrrh sells steadily, but of late our stock has been growing. It now numbers 394 packages, against 335, 204, and 230 on the corresponding dates of the three preceding years. In sale 93*s.* to 94*s.* 6*d.* was paid for rather dusty pale Aden sorts, which was cheap.

Gum Olibanum does not meet with much attention. About one-fourth of the 387 cases offered in the last public sales were disposed of at 42*s.* 6*d.* for drop, rather red and dark mixed, from Bombay, 19*s.* 6*d.* to 16*s.* 6*d.* for garblings, and 14*s.* 6*d.* for siftings.

Gum Sandarac quiet, at 48*s.* for dusty yellow drop, and 23*s.* 6*d.* for pickings.

Gum Tragacanth.—About 1,350 packages were offered in public sale last week, but only a few lots found purchasers at about previous rates, viz., 8*l.* 10*s.* for good second *Syrian*, 6*l.* 7*s.* 6*d.* to 7*l.* 5*s.* for yellow more or less damaged to sound, 4*l.* 15*s.* to 6*l.* for thirds, 4*l.* 12*s.* 6*d.* for fair fourths, and down to 15*s.* per cwt. for very common.

Honey.—In to-day's sale a few lots of Californian and Japanese honey were offered, but bought in at nominal figures. There is a steady demand privately, and we hear of sales at 27*s.* 6*d.* per cwt. for fair quality *Chilian*. Fair to good pale *Californian* is held at 27*s.* 6*d.* to 32*s.* per cwt.

INDIGO.—During the month just passed the market has been very quiet, with inconsiderable transactions. The imports of indigo into London are given as follows:—

		1887	1886	1885
May	chests	1,320	1,559	1,025
Jan. 1 to May 31 ..	,,	14,323	17,567	13,778

The present stock is 3,070 chests below that of last year, while the deliveries from the warehouses represent an increase of 1,323 chests over those of the first five months of 1886. Calcutta advices, dated May 10, state that the accounts of the crop in all districts is very satisfactory, although in Bengal rain would be welcome. Later cable reports state that rain is much wanted in the indigo districts.

IPECACUANHA.—The fact that 27 packages, ex "Tycho Brahe," were advertised for sale caused a general belief that prices had reached their highest pitch, but the parcel in question was not offered, it not having been landed in time. The auctioneer stated that the owners held it on the basis of 8*s.* per lb. for "fair merchantable Rio," and were not at all disposed to throw it away. A few other serons were offered, but not sold.

LIQUORICE.—Thirty bags very good decorticated root in small pieces are held at 44*s.* per cwt.

MUSK.—There was a good selection of *Tonquin* pod musk, the bulk of which sold at steady prices, viz., 85*s.* per oz. for first pile, thin blue skin and underskin, mostly small pods and somewhat damp; 81*s.* 6*d.* to 82*s.* for ditto partly broken and rather more skinny, 74*s.* 6*d.* to 76*s.* for small to bold pods with top and underskin. Good third pile fetched 43*s.*, and dry but very skinny ditto 30*s.* per oz. Trimmings sold at 10*d.* to 1*s.* 1*d.* per lb.

OIL (COCOA-NUT) has been in somewhat better request and closes at higher rates for *Ceylon* in pipes. The quotations are now: *Ceylon* oil, 23*l.* 15*s.* to 26*l.*, according to packing and quality. *Cochin* oil, 31*l.* to 33*l.* *Mauritius*, 26*l.* to 26*l.* 10*s.*

OIL (COD-LIVER) is somewhat firmer, and holders ask higher rates. The Finmarken fishing has yielded about 4,000 barrels this year, against 2,100 in 1886 and 6,200 in 1885.

OIL (COTTON-SEED) dearer. *Crude*, on the spot, 18*l.* to 18*l.* 5*s.* *Refined*, on the spot, 19*l.* 10*s.* to 20*s.* 10*s.*

OILS (ESSENTIAL.)—Oil of *Star anise* is cheaper, 25 cases having been sold at 7*s.* 4*d.* per lb. Our stock has been strongly reinforced during the past month, and now numbers 129 cases against 272, 328, and 371 cases on May 31 of the three preceding years. According to the latest mail advices the price of the oil in China was $250 to $255 per picul, with small sales for native consumption, and hardly anything in stock. *Cassia* rather easier, at 2*s.* 9*d.* per lb. We hear from China that supplies of about 100 cases were expected to arrive at Macao, but that the tendency of the market remained very firm, it being even thought possible that, in spite of expected arrivals, dealers might succeed in raising the quotations. There was very little oil in stock. *Cinnamon*, *cinnamon leaf*, and *citronella* oils maintain the last quotations. From Southern France an upward movement in *Neroli* is reported, but distilling has scarcely commenced as yet, and it is impossible to say how prices will rule when the crop is once fairly on the market. The first flowers, the only ones which have been gathered so far, do not possess the fine bouquet of those which are collected later on, and yield an oil of less fine quality than the latter. Oil of *peppermint*, HGH brand, is held at 15*s.* 6*d.* per lb.; 6 cases good Japanese oil were knocked down in public sale to a broker at 4*s.* 6*d.* to 4*s.* 9*d.* per lb., which does not seem so bad a price, considering the quotations which are made privately. Three cases good dry *menthol crystals* were disposed of in the same way at 4*s.* 6*d.* per lb.

OIL (LINSEED) is again dearer, at 21*l.* 10*s.* to 21*l.* 17*s.* 6*d.* on the spot here, and 22*l.* 5*s.* to 22*l.* 10*s.* at Hull, according to packing.

OIL (OLIVE).—A steadier tone prevails, but business is of a limited character. *Spanish* oil is held at 35*l.*, *Sicilian* at 32*l.* 10*s.* to 33*l.*, and *Mogadore* at 31*l.* to 31*l.* 10*s.*

OIL (PALM) still held at 21*l.* for fine Lagos.

OIL (RAPE) has made another advance, and closes as follows:—English *brown* on the spot 22*l.* 10*s.*; June-August, 22*l.* 10*s.*; September-December, 22*l.* 10*s.* English *refined* on the spot 23*l.* 15*s.* to 24*l.*

OIL (TURPENTINE) is dearer on the spot, where *American spirits* are quoted 29*s.* 9*d.* to 30*s.*, but slightly weaker for forward delivery, which is held at 28*s.* to 26*s.*, according to position.

OPIUM.—Our market is exceedingly firm, and in Smyrna the article continues to improve also. The Constantinople market, although as yet there do not appear to be many buyers, is now also firmer. Throughout Asia Minor a terrible drought continues to prevail, which has completely destroyed all crops in that region. Local journals print letters from the affected districts, in which the position of affairs is described as most alarming. In the province of Mersina, within the memory of man, has there never been such a fatal and ominous year as the present. The four seasons of the year have passed with an almost entire absence of rain; and a total stagnation in business now prevails as the natural consequence of this terrible drought. In Angora, also, the distress is universal. Everywhere the crops have suffered, and no year so disastrous to the interests of agriculture as the present has ever been known in the country.

ORRIS ROOT.—About half a ton good pale root, small to bold pieces, sold at 20*s.* per cwt.

PLUMBAGO.—There is a demand for good chips and dust, but these qualities are wanting just at present. Good, slightly mixed to fine bold lump, is worth 13*s.* 6*d.* to 15*s.* per cwt. The shipments of plumbago from Ceylon from October 1, 1886, to May 5, 1887, were 129,123 cwts., against 110,074 cwts. and 104,004 cwts. during the corresponding periods of 1885–6 and 1884–5. About three-fifths of the total went to America, the remainder mainly to England. Large quantities of plumbago occur at Pakawan Bay, in Golden Bay, New Zealand, but these have not been hitherto brought into commerce. Two samples yielded upon incineration 65·01 per cent. and 48 55 per cent. ash respectively.

POTASS. PERMANGANATE.—It is thought not impossible that the convention of Continental producers who control the article will shortly again advance the price. At present 83*s.* per cwt. is quoted.

QUICKSILVER.—The importer still holds at 6*l.* 12*s.* 6*d.* per bottle, while second-hand holders offer somewhat lower.

QUILLAYA sells in fair quantities, at 14*l.* 17*s.* 6*d.* to 15*l.* 10*s.* in Liverpool.

QUININE.—Very little business has been transacted since last week, but the feeling is, if anything, slightly better, and *German* quinine in bulk is held at 1*s.* 9½*d.* per oz.

RHUBARB.—About 150 chests were offered, but only a few lots were sold, the bulk being bought in at steady prices. Two cases *Shensi*, two-thirds fine bold flat pieces, three-quarters good pinky fracture but pale in colour, sold for export at 3*s.* 11*d.* per lb., a fancy price; 3*s.* 6*d.* per lb. was paid for two cases round *Shensi*, small to medium, two-thirds fine pinky fracture, pale in coat; 10*d.* for mixed *high-dried* and *Canton*, rather wormy, and 7*d.* for ordinary wormy *high-dried*.

SAFFRON is advancing, and now quoted at 50*s.* for finest *Valencia*, and 45*s.* for second quality. There is very little to be had, and the new crop will not be on the market until the middle of October.

SARSAPARILLA.—Good grey *Jamaica* sells steadily at 1*s.* 9*d.* to 2*s.* for sea-damaged, while sound root would be worth 2*s.* 2*d.* per lb. Some spurious Jamaica root sold at 1*s.* 5½*d.* to-day. *Honduras* and *Mexican* are neglected.

SENNA.—Only a few bales were sold to-day at steady prices. Since last week about 110 bales *Tinevelly* and *Alexandrian* have arrived.

SODA.—*Ash* is still held at 1¼*d.* per degree in London. *Bicarbonate* remains quiet at 7*l.* per ton here, 6*l.* 5*s.* to 6*l.* 10*s.* in Liverpool. *Caustic* unchanged, at 7*l.* 15*s.* for 60 per cent. cream to 8*l.* 5*s.* for ditto white. *Crystals* remain firm at 50*s.* here, 42*s.* 6*d.* on the Tyne. The continued arrival of cargoes of *Nitrate of soda* has caused a considerable decline in the quotations for that article, 9*s.* 9*d.* to 10*s.* per cwt. ex store being now asked at Liverpool.

SOY.—There has been a considerable business done in *China* soy since our last report, and prices have reached 1*s.* 7*d.* per gallon; but the market closes quieter, at 1*s.* 6*d.* per gallon.

TONQUIN BEANS.—Fair to foxy *Pará* are firmly held at 1*s.* 6*d.* to 1*s.* 3*d.* per lb. Good frosted *Angostura* are very scarce. The beans are very largely collected in the forests of the Caura district of Venezuela, and brought into commerce *viâ* Ciudad Bolivar. Prior to 1883 the collecting of the fruit was effected by local merchants, who paid to the Government an export duty of 35 cents per lb. on the gross weight; but since that year the collection of the beans has become a monopoly, and the contractors now only pay 10 cents per lb. export duty. In 1886 the crop of Tonquin beans was abnormally large, and it is computed that no less than 350,000 lbs. were prepared for export, although the export statistics from Ciudad Bolivar do not indicate quite so large a figure, being as follows:—

Year	Quantity Exported (Gross weight)	Value	Duties
	lbs.	£	£
1882 ..	89,985	8,693	4 565
1883 ..	153,138	17,248	10,720
1884 ..	150,681	23,228	10,543
1885 ..	35,325	3,201	565
1886 ..	293 000	23,400	9,960

The following are given as the average prices of Tonquin beans at Ciudad Bolivar and in New York, but they do not appear very reliable, so far, at least, as the latter place is concerned:—

Year		Ciudad Bolivar Duty paid		New York	
		s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1882 ..	.. per lb.	2 6 to	2 11	4 7 to	5 5
1883 ..	.. „	1 8 „	2 1	4 2 „	5 3
1884 ..	.. „	1 8 „	2 1	6 8 „	8 4
1885 ..	.. „	1 8 „	—	6 3 „	6 8
1886 ..	.. „	1 3 „	1 8	4 2 „	7 4

Of the 1886 exports 63,144 lbs. went to New York direct, and 111,967 lbs. to Trinidad, whence they were probably forwarded to New York also.

VANILLA.—Eighty-seven tins were offered to-day, but only a very few were sold at the following prices:—8 in., 27*s.*; 7 to 7½ in., 21*s.* 6*d.*; 7 in., 21*s.* to 20*s.* 6*d.*; 6 to 6½ in., 19*s.* to 19*s.* 6*d.*; 5½ to 6 in., 17*s.* 6*d.*; 5 in., 13*s.* 6*d.* per lb.

WAX (BEES') is in good supply but sells very steadily; *Australian* at 6*l.* for fine yellow and grey, 5*l.* 17*s.* 6*d.* to 5*l.* 15*s.* for ditto, slightly drossy; 5*l.* 15*s.* for dark grey and orange, and 5*l.* 12*s.* 6*d.* for dark, mixed with light grey. Some very fine pale orange *Jamaica* brought the high price of 6*l.* 15*s.*; slightly darker ditto, 6*l.* 10*s.* to 6*l.* 12*s.* 6*d.*; good yellow, 6*l.* 5*s.*; red and chocolate, 6*l.* 2*s.* 6*d.*; red and dark, 6*l.*; mostly dark, 5*l.* 10*s.*

WAX (JAPAN) easy. Good pale squares have sold at 48*s.* per cwt.

THE AMERICAN MARKETS.

NEW YORK, May 21.

BUSINESS during the week has been characterised by a quiet tone, although a fair demand in the jobbing trade exists. The export trade is again dull, with no immediate expectation of revival.

The prices sterling (in parentheses) are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can therefore see at a glance the course of this market compared with their own.

ALOES (CURAÇAO).—The new crop is now due, but as yet there are no signs of any coming forward. This, with the improving position of *Cape* aloes, has encouraged holders to advance their rates, and 5c. (25*s.*) for common is generally asked. Stocks in second hands are ample.

BALSAMS.—Twenty cases of Maracaibo copaiba arrived, and were sold from dock at 40c. (1*s.* 9½*d.*), being an advance. Thirteen barrels of Pará also arrived, but are held for the high figure of 45c. (2*s.*). *Peru.*—An arrival of 5 cases took place, but are held off the market; the stock in second hands is large. *Tolu* is dull and unchanged.

BARKS.—*Cascara Sagrada* is in good demand at 7c. (38*s.*). There are few sellers at this price, however, as to renew the stocks freight will now have to be paid 2½c. per lb., against ½c. as formerly, from the Pacific coast. *Canella* and *Cascarilla* arrive in large quantity from the Bahamas, but are not offered on this market, being transhipped to London. *Jamaica dogwood* is very scarce.

CAMPHOR.—Our market for *refined* is quiet and steady. The stock of *crude* is said to be large, sufficient for two years' supply.

ESSENTIAL OILS.—The parties who control the bulk of the stock of *aniseed* do not appear to have great confidence in the future, as the market is weak at $1.80 (8*s.*). *Cassia* also is unsteady at 68c. (3*s.*), for it can be bought "to arrive" at 65c. (2*s.* 10*d.*). *Sassafras* being greatly neglected sells for 36c. (1*s.* 7¾*d.*); less might buy a large lot as received from the distillers. *Wintergreen* is lower, and looks as if it would go down more; in tins $1.70 (7*s.* 1*d.*). *Spearmint* in small supply at $5.50 (24*s.*).

OIL OF PEPPERMINT is still very much neglected. There are few transactions, and these only of a retail character. Export inquiry appears to be dead.

HONEY (CALIFORNIAN).—There is no stock to speak of in New York, nor are merchants here likely to handle it again, or at least till the shippers in California learn how to brand and grade their product. Importing honey from there is a profitless occupation, and it is now currently reported that the Californians have to consign it for sale to Liverpool and London, as nobody there will take hold of it on their own account.

QUININE remains inactive. B.S. brand sells in a small way at 43½c. (1*s.* 11*d.*, 5 per cent.), and other German brands down to 42½c. (1*s.* 10*d.*, 5 per cent.). Less might be taken for quantity. Nothing in the immediate future appears likely to reanimate the market.

ROOTS.—*Golden Seal* has rapidly fallen to 18c. (10*d.*). *Pink root* is also declining, and may be quoted 35c. (1*s.* 9*d.*). *Serpentaria* in ample supply; old crop at 24c. (1*s.* 1*d.*). No news of the new root yet, but there is plenty left to supply the demand. *Senega* greatly neglected, and no transactions to report. Stocks remaining are supposed to be heavy. The new crop comes along in July. *Jalap.*—Most of the arrivals of new crop are finding their way to London; 9c. (5¼*d.*) is the market price here. For *Ipecacuanha* there is no demand at the high price.

SPERMACETI has now actually declined, and sales were made this week at 40c. (1*s.* 9*d.*). As there is no demand, makers may before long reduce their price again.

THE ESSENTIAL OIL TRADE.

THE following particulars are taken from Messrs. Schimmel & Co,s semi-annual report on the essential oil trade:—

CINNAMON OIL.—The prices of cinnamon chips have advanced by about 15 per cent. since last November, and may not improbably rise further still, as the shipments fell off last year. As regards the oil itself, the Ceylon statistics, which give a total export of 139,094 ozs. for 1886, doubtless include the oil distilled from the leaves and roots, for there is no question that the production of true oil of cinnamon bark in Ceylon is as yet so small as not to exceed 10 per cent. of the total exports quoted under the heading "cinnamon oil."

CUSCUS OIL.—Judging from the quantities offered by him, it appears that the manufacturer of this oil on the island of Réunion, whose product has only recently been placed on the market, considers that there is an unlimited demand for this oil. Such is not the case, however, for the use of so expensive an article must necessarily be a very restricted one.

KIKU OIL.—From Japan specimens have been received of essential oil of kiku leaves and flowers. The botanical name of the plant from which this oil is derived cannot be ascer-

tained at present. Kiku leaf oil is a colourless essential oil of a camphor-like odour, somewhat approaching eucalyptus. Oils of this aroma, however, are already so amply represented that there does not seem to be much room for new varieties. The oil has a specific gravity of 0·885, and boils at 165° to 170°. The production, although only in its infancy, has already attained 3,000 caddies, or about 4,000 lbs., per year. The oil of kiku flowers possesses a rather pleasant odour up to about 180°, but at 220° it also acquires a smell of camphor. At a low price this oil may become useful.

Mustard Seed Oil.—The demand for oil of mustard seed continues very good, but the competition of the artificial article, which either by itself or mixed with the true oil is frequently sold as pure oil of mustard seed, renders the extraction of the former an unremunerative business.

Myrtle Oil.—Spanish oil has now been placed on the market in small quantities in lieu of the French oil, and is expected to meet with approval among perfumers. Corsican myrtle oil, which is said to be yielded by the cultivated myrtle, and of which a small consignment was recently received, surpasses in quality all other varieties.

Otto of Rose.—Of the German otto distilled last year very little now remains in stock, but the new crop will be gathered in June–July. The extensive plantations of centifolia roses, which were commenced in the neighbourhood of Leipzic about three years ago, are flourishing extremely well, having successfully withstood the severe winter without being in any way specially protected, and there is no reason to doubt the future success of the German otto-of-rose industry. As regards the Bulgarian otto of rose, the conviction is growing, and has been increased by the dull state of the otto trade during the last few years, that the consumption of otto of rose is decreasing. The present tendency of trade, which is not favourable to purely fashionable articles, most especially bears hard on an article like otto of rose, the adulteration of which is almost proverbial. Under these circumstances, essential-oil dealers would act wisely in trying to induce their customers to substitute high qualities of geranium oil for otto of rose, in this manner, as it were, exercising a kind of moral pressure on the producers of Turkish otto of rose.

Patchouly Oil.—The price of this article has risen considerably, and it is impossible to say when it will again assume normal proportions. At present it is a matter of congratulation if the demand can be met at all, for only a very small amount of leaves of good quality are being placed on the market at Penang. The patchouly imported *viâ* Bombay and Calcutta is generally of very inferior quality and does not yield at all so fine an oil as is obtainable from the leaves grown in the Malay Peninsula. A patchouly of still better appearance than the latter, but much less aromatic, is collected in Java, and shipped *viâ* Batavia, but supplies of this variety have been failing for a long time. Prime leaves for sachet powders are unobtainable just at present.

Peppermint Oil.—The consumption of American oil of peppermint appears to be gradually falling off, probably in consequence of the fact that Japanese peppermint oil is gaining ground and has all but superseded the American product in certain departments, snch as soap making. The production of peppermint oil in Italy is also extending, in Spain the cultivation seems to engage attention, and in England also peppermint growing seems to have received a fresh impetus. The pranks played with the so-called "dementholised American oil of peppermint" have also damaged the American industry. If the production in Japan should keep up, and the quality of the Japanese oil be improved by a more careful cultivation, it will doubtless become necessary for the Americans to seriously take stock of their rival. After quoting the observations on Japanese oil of peppermint in a recent issue of The Chemist and Druggist, Messrs. Schimmel & Co. continue:—"We believe we are on the point of solving the question as to which body causes Japanese peppermint oil to acquire the peculiarly bitter taste which renders it unfit for use in lozenge-making and in confectionery. We believe the body to be Menthone, which answers the formula $C_{10}H_{18}O$, and will probably be in a position to say more about the subject in our next report."

Rosewood Oil (Oil of Rhodium).—The product which is offered in commerce under this name consists of a mixture of different essential oils, including otto of rose; but owing to the length of time since which true rosewood (Rhodise-wood) has been obsolete as a druggists' article, and to the alterations occasionally made in the composition of the so-called rosewood oil, the article now offered under that name has nothing in common with the original essential oil. This became evident recently when a small lot of undoubtedly genuine rosewood (*Convolvulus scoparius*) arrived by an indirect route, probably from the Canary Islands. Unfortunately, the parcel contained very little root, which part is the richest in essential oil, so that only an unimportant quantity of oil was obtainable from it. This oil is of a fine golden colour. It congeals, like otto of rose, at a temperature of 12° C., into needle-shaped crystals. The aroma resembles that of otto of rose.

Wintergreen Oil.—The American pharmaceutical press endeavours to discredit the artificial oil of winter green by constantly making ill-natured and unfounded remarks about it, but probably the sound sense of the general public will soon form its own opinion on the subject. The view of the New York correspondent of The Chemist and Druggist that the synthetically made article, after being kept for some time, develops an odour of wood naphtha is entirely erroneous. As a matter of fact the odour of the artificial oil improves by keeping.

Ylang Ylang.—The production of this oil in the Philippine Islands is apparently largely on the increase, as shown by the prodigality of direct offers and even of consignments. The latter, however, were generally of a quality commensurate with their low price, and there is quite a plethora of second and third rate parcels on the market. It is difficult to say how the latter will find purchasers, for not only from Manila but also from the Dutch Indies and Siam inferior oil is being shipped.

Specific Gravities of Essential Oils.—The following figures denote the specific gravities of the principal essential oils of commerce, as ascertained by experimenting upon pure specimens. Slight differences may occur in the third decimal when testing samples without conclusively proving adulteration:—

Name	Temperature—Celsius		
	10°	15°	20°
Angelica oil (from the root)	0·860	0·858	0·853
Aniseed oil	—	0·985	0·980
„ „ anethol (pure)	—	—	0·985
Bergamot oil (prime Reggio)	0·887	0·883	0·880
Bitter almond oil	1·063	1·060	1·055
Cajuput oil (green)	0·927	0·925	0·922
Calamus oil	0·961	0·959	0·957
Caraway oil (Dutch)	0·911	0·908	0·905
Cardamom oil	0·902	0·900	0·897
Carvol	0·967	0·963	0·958
Cassia oil (from flowers)	1·073	1·068	1·063
„ (rectified)	1·058	1·055	1·052
Cedarwood oil	0·948	0·945	0·940
Cinnamon oil (Ceylon)	1·035	1·030	1·027
Citronella oil	0·900	0·896	0·893
Clove oil (from stalks)	1·065	1·061	1·057
„ (from flowers)	1·065	1·062	1·059
Coriander oil	0·872	0·867	0·864
Cubeb oil	0·918	0·915	0·912
Cumin oil	0·925	0·922	0·918
Dill seed oil	0·905	0·900	0·896
Eucalyptol (purum album)	0·935	0·931	0·928
Eucalyptus oil (globul.)	0·925	0·922	0·918
Fennel oil from seed (rect.)	0·975	0·970	0·965
Ginger oil	0·885	0·882	0·878
Juniper oil (double rect.)	0·863	0·858	0·855
Lemon oil	0·856	0·854	0·851
Mace oil	0·858	0·855	0·852
Mirbane oil	—	—	1·200
Mustard oil (pure essential)	1·030	1·025	1·020
„ „ (artificial)	1·025	1·020	1·016
Peppermint oil (F. S. & Co., American)	0·906	0·903	0·901
„ „ (Mitcham)	0·905	0·900	0·898
Safrol	1·109	1·104	1·100
Sandalwood oil (East Ind.)	0·978	0·975	0·973
Sassafras oil	1·068	1·065	1·060
Spearmint oil (rect.)	0·930	0·925	0·922
Star-anise oil	0·990	0·985	0·980
Wintergreen oil (natural)	1·189	1·185	1·182
„ „ (artificial)	1·192	1·187	1·183



The Trade Association.

SIR,—The dirge-like announcement in your columns last week, respecting a meeting "to consider the desirability of winding-up the Trade Association," reminded me very forcibly of the notice said to have been inserted in an American newspaper in the Far West, mentioning the name of a citizen who had rendered himself obnoxious to the neighbourhood, fixing a date for his funeral, and adding a footnote, "The corpse will be ready." The important question to be decided is whether at the meeting summoned the "corpse shall be ready" for decent interment, or regalvanised into life.

If it be a fact that the Association as at present constituted does not command the confidence of the trade, by all means let it be remodelled; but surely future historians of the "craft" will have severe remarks to make upon the apathy of those who, unduly elated about a curriculum, or unduly depressed about unfair competition, allowed the only society which *professed* to protect trade interests to perish untimely. As a member of the Executive from the commencement, I can conscientiously bear testimony to the hard work done by the Birmingham Local Urgency Committee and the officers of the Society, upon whom the bulk of the work has fallen.

If the non-response to the appeal of the Association is intended as a vote of censure, by all means let it be loyally accepted as such, and the Association buried deeply and decently; but if the well-known *cohesion* between members in the trade (which was the other day aptly compared to that possessed by a bucket of Margate sand) have anything to do with it, those most deeply interested in the matter should realise that it will be less expensive to keep the Association alive than to purchase mourning for it after its interment.

Faithfully yours,

82 City Road, E.C. GEORGE WALKER.

The Minor Examination.

SIR,—The question raised by "A. M. W." in your issue of this week, as to the illegality of the President and Vice-President taking part in the conduct of the examination proper, is one of great importance, and deserving, I think, the most careful attention. I think the case is even stronger than your correspondent puts it, and with your permission would state several other points bearing on it.

Clause 4, Section X., of the by-laws provides that the President and Vice-President shall *ex officio* be members of the Boards of Examiners, and that either of them present at any meeting shall preside. This evidently does not contemplate both being present, for in that case there would be two chairmen of the meeting—an irregularity which actually occurs at every meeting of the London Board. But more than this. Why should the clause provide for either of them, if present, presiding? They would in virtue of their office take the chair as a matter of course, without any such provision. Is not the inference plain, that it is directed, not to their presiding, but to their not taking any other position in the examination room? This becomes more apparent by considering the scope of clause 6, which is drawn so as carefully to exclude the executive of the society from the work of the examination proper. It provides that "No person shall be appointed an examiner who at the time of his appointment is, or who during one year prior to his appointment has been, a member of the Council, and the election of any examiner to be a member of the Council shall vacate his appointment as an examiner."

Clause 9 also, which requires the approval by the Privy Council of every examiner, points in the same direction.

The present occupant of the presidential chair is a wonderful person, and, as you pointed out the other week, seems to have a monopoly of all the work in every direction; but it is a serious matter to find him in the exercise of his omnivorous capacity setting himself above or against the law. Unlike your correspondent, I cannot say I expect he will soon come to see the false position he has taken in the matter. I do not believe anything short of a hint from the Privy Council will bring that about, and now that the question is fairly raised I have no doubt that will be forthcoming.

I am, yours, &c.,

LEX SUPREMA SALUS.

SIR,—Your correspondent, Mr. Fletcher, may not have had any "axe to grind" at the annual meeting, but his mode of warfare certainly reminds one very forcibly of the old days, in which battles were fought with bludgeons and battle-axes. That Mr. Fletcher should have felt chagrined by his discomfiture at the meeting in question is not surprising, but I should think he would have been greatly surprised had the President allowed his proposition to go to the meeting. The picture Mr. F. draws of the "candidates personally known to me as well-trained intelligent young men, with more than average experience, who have been rejected in their first subject," is certainly a pitiable one, and that examiner must indeed be hardhearted who would dare to pluck one of Mr. Fletcher's fledglings. I would suggest to your correspondent that the next time one of his *protégés* presents himself for examination he should go armed with a certificate from Mr. Fletcher.

Mr. Fletcher's interpretation of the by-law to which he alludes seems to be that the examiners are bound to examine every candidate in every subject included in the syllabus. Had he brought a little common sense to bear upon the subject it might have struck him that the meaning of the by-law in question was much simpler, and that it was intended to imply that a certificate should not be granted until the candidate had been examined (and had satisfied the examiners) in all the subjects included in the syllabus. But this surely does not prevent an examiner stopping the examination of a candidate when that candidate has failed to satisfy him in a given subject. If there were any chance of the verdict of one examiner being upset by the views of others, there might be some ground for Mr. Fletcher's objection, but the President distinctly informed that gentleman that the examiners required, as the basis upon which they conducted the examinations, a pass in every subject.

Mr. Fletcher's last paragraph is easily disposed of. He says, "If the Council of the Society is of opinion that the qualifications of a candidate who comes up to be examined in six subjects can be fairly and satisfactorily determined by one examiner in one subject, by all means let the sixth section of the Pharmacy Act be repealed, and a new by-law be enacted for that purpose." Mr. Fletcher's contention is beside the question. He creates a difficulty of his own imagination, and then proceeds to show how it may be overcome.

Next time Mr. Fletcher essays a departure in pharmaceutical affairs I venture to hope he will not allow his prejudice to overrun his judgment. As Mr. F. himself has previously reminded us (when on the subject of the new Pharmacopœia) common sense is a valuable commodity. But to look for common sense in Mr. F.'s last letter would be like trying to "detect and estimate the amount of iron in a homœopathic globule."

I am, yours faithfully,

Buxton, May 25, 1887. R. WRIGHT.

J. D. (43/109) submits some remarks on this subject in verse, but at greater length than seems to us necessary. He says:—

> My song (such I call it) is not one of praise,
> But rather the folly of Bloomsbury portrays.

Then, having recorded his early life and private studies (his purse not admitting of college tuition), he says he sent in his fee, and continues:—

> In fancy I plainly could picture my shop,
> My name on the door, and a lamp o'er the top,
> A brass 'neath my window to gain admiration
> Of all who should see the "By Examination."
> The morning was bright, the sky clear and blue,
> As at the set time I to Bloomsbury flew,
> At which I arrived as true as the clock,
> Where I met other lambs from pharmacy's flock.

Brought into the examination room and sent for his first subject to the dispensing counter, he says:—

I wended my way, and soon I began
To show Mr. Greenish he'd now got a man
That knew how to do it; and still my breast fills
As often I think of those creasote pills.
My almond emulsion, too, turned out like cream;
I seemed to be doing it all in a dream.
I next went to Tanner (breathe softly his name),
A gentleman having an evergreen fame.
He soon trotted out "his hobby" of course,
And wanted to know all the methods and source
Of Spirit Eth. Nitros, and how you might tell
If 'twas got at the Stores, or a chemist did sell.
I drew in my horns, for I very soon found
Myself in a fog on dangerous ground.
I stammered and stuttered, no pluck could I get,
For Tanner's sweet nitre did so make me sweat
That I never recovered my confidence gone,
But felt that my nerves were completely unstrung.
I soon stood outside, though it pains to recall
How I went downstairs humming the Dead March in "Saul."
'Tis needless to state I felt bitter and sore,
And vowed that the Square I'd never see more.
But Time's a great healer, as all will allow,
And soon I forgave and forgot my rash vow;
For six months flew past, again did I try,
And this time felt sure I'd my work cut and dry.
I started at botany, passed it with ease;
Prescriptions, I rendered them just as you please;
At chemistry, too, I turned out no dunce,
For I "spotted" my metal and acid at once.
Pharmacy, too, placed me under its banner,
For I e'en gained the praise of the evergreen Tanner
(This time I was glad he'd a little more sense);
And, pharmacy over, I went to dispense.
Mr. Fletcher I got, and he soon "fletchered" me,
Though what I did wrong I never could see.
He spoke just as if I'd come to be tried
For some great offence, and ought to have died.
I shouldn't have minded the failure so much
If he who had failed me had been more in touch
With those who a little sympathy need,
And who for their part are pretty well "fee'd."
Once more I descended the familiar stairs,
With an inward resolve not to add to my cares
By trying to pass an exam. so unjust,
But turn my attention to earning my crust.
I opened a shop at the East-end of town,
Which now is a drug-store of no small renown.
I take forty pounds on an average each week—
A sum it would puzzle most chemists to beat;
I've lately been married; I'm a prosperous man.
Just a word of advice.—Do the same if you can.

Pharmaceutical Nomenclature.

SIR,—I am fortunately able to give "Heder" an explanation of most of the terms mentioned in his interesting letter. The meanings are not in any case exactly what he supposes. *Cassolette* is French, and signifies primarily a perfuming-pan, secondarily a perfume; if applied to a lozenge (which I doubt) it would be to indicate some aromatic property. A *walm* is not a measure, either of time or capacity, but a bubble in boiling. Halliwell quotes from an old MS. poem:—

Wyth vii *walmes* that are so felle,
Hote spryngyng out of helle,

and a verse in which *walming* is used in the sense of boiling: to "boil one walm" is in a modern housewife's phraseology "to come to the boil." *Overthwart* is a very common old word, and properly means across, as in Chaucer's "Troilus and Cressida":—

Here at this closet dore withoute,
Right *overthwart*, youre wommen liggen alle.

To *searse* is not to powder, but to sift. Both this and the substantive *searce*, a sieve, are given in Ogilvie's Dictionary; and *searsings*, siftings (or perhaps in this case cleansings), occurs in Ashmole (quoted by Halliwell):—

When your three *searsings* be done after my lore,
Then breake the stone as you did before.

To *wake* is still occasionally used in the sense your correspondent attributes to it; its original meaning was, of course, to watch. *Pomos* is probably related to *pome*, which occurs in Garvin Douglas's "Eneados" in a list of aromatic medicaments:—

Scroppys, sewane (?),* sugur, and synnamome,
Precyus iuyuctment, salve, or fragrant *pome*.

"Heder's" references to *ladanum* are particularly interesting. Will he kindly allow me a sight of this old book?

I am, &c.,
Epworth, May 30. C. C. BELL.

The Duke of Westminster and his Tenants.

We have received lengthy letters from Mr. E. L. Armbrecht, 2 Duke Street, Grosvenor Square, and from Mr. James Platt, 77 St. Martin's Lane, in reply to the statement we published last month from the pen of the Duke of Westminster's agent, Mr. H. F. Boodle. We are sorry that we cannot give up the space necessary for the complete discussion of the personal matter involved, and we do not think our pages are suitable for a proper treatment of the great problems involved in the land question generally. Mr. Boodle's statement was a representation of the landlord's case, very courteously expressed, in reply to the *ex parte* statements on behalf of the tenant which had been put forward by Mr. Platt, and on which we had commented simply because the said tenant was a chemist and druggist. So far the case on both sides had fairly appeared, and the new letters add but little to the comprehension of the dispute. The few points there are can be briefly summarised. Respecting Mr. Boodle's contention that Mr. Armbrecht was only an "undertenant," Mr. Platt maintains that the tenant in possession, being the man who has to earn the money to pay both landowner and houseowner, is the man who should have the first consideration at a renewal of a lease, or a new building lease; to put him aside because he is not a direct tenant is absurd. If the original building lease be for eighty, ninety, or ninety-nine years, how many "direct tenants" are in possession when the lease expires?

Mr. Armbrecht says: "I should be glad to know what equitable difference Mr. Boodle or the Duke can point out between my position and that of a direct tenant, seeing that I had bought the interests of his Grace's direct tenant for the full term, and therefore, to all intents and purposes, held my house direct from the freeholder."

Mr. Platt says: "As regards omitting part of the correspondence, I submitted to the committee all the evidence I received. Mr. Armbrecht had had to move himself, and his place was all in confusion." He gave Mr. Platt a few more letters a little later.

Mr. Boodle makes a point of the offer of No. 3 Duke Street to Mr. Armbrecht, and the refusal of the offer by him. Mr. Armbrecht says:—"The rack-rent of this house as stated by his clerk was 160*l*. The house is small, and was in such an unsanitary and unsafe condition that if his Grace had seen it he would certainly have pronounced it unfit for his pigs or dogs. This house is now let at 50*l*."

Mr. Platt makes a similar statement. He says he asked Mr. Boodle for an explanation of this difference of the rent asked of Mr. Armbrecht and that taken from another tenant, in the *Echo* of May 14, but has had no reply, though he notes that Mr. Boodle in his last week's letter states that "no rent or terms had been stated to Mr. Armbrecht," though the latter still asserts he was asked 160*l*. a year. Mr. Platt quotes a letter from Mr. Armbrecht positively denying that when he gave up the key of No. 23 any promise of consideration of his repeated applications for a building site was made to him. Mr. Armbrecht flatly contradicts Mr. Boodle's assertion that his (Mr. Armbrecht's) goodwill has not suffered, and gives the following statistics:—"In March, 1886, I dispensed 1,160 prescriptions; this year, 984; April, 1886, 1,773; in 1887, 791; in May, 1886, 1,209; this year, only 912. All the other returns are in proportion, and I fear my loss will increase, as people do not go far out of their way for articles which can be procured nearer at hand."

Both correspondents conclude their letters with suggestions of favouritism.

* ? *Savon*, soap.

Graph Composition.

SIR,—Having had a good deal of experience with these compositions some years ago, after many experiments I found that the following formula yielded the best results. It is a more expensive preparation than several others, but as it takes off 150 copies with ease, it is worth the extra expense.

Gelatine (Nelson's)	3 oz.

Cut small and soak for twelve hours in water (4 oz.). Then add—

Glycerine	20 oz.

And heat gently until dissolved. Pour while hot into square wooden or tin trays. No barytæ sulph. is required.

For ink I used the following:—

Methyl violet aniline	3ij.
Aquæ	3vj.
Spt. vin. meth.	3ij.

Solve. Write with a steel pen on medium thick paper.

Yours, &c.,
ECOSSE. (109/54.)

Window Attractions.

SIR,—Among the various attractions which may be exhibited by chemists who care to distinguish their places of business from the ordinary run of "shoppy" windows, the following may be mentioned:—Philosophical toys, representing thermo or electric motion; water-wheel in action; models of local ruins, put together perhaps by "perseverance, cork, and glue;" collections of local fossils; local minerals; botanical specimens, neatly mounted and labelled; curios which may have a pharmaceutical interest; ancient coins found in the neighbourhood; and, in fact, almost anything that our fellow-townsmen would not think of exhibiting. My experience is that the chemist is often a public referee in respect to all curious or uncommon matters. A cheap and saleable toy has lately caused much amusement in my window. It is called a "temper tester," and is a glass-tube resembling a tuning-fork with a bulb on the stem. Placed in the sunlight, the little figures dance up and down most energetically. It is, I believe, of German make, and may be bought of the sundry-houses.

I trust that your correspondents will give us details of the working models so much desired by "John o' Groats."

Yours truly,
HEDER. (110/49.)

P.S.—I would suggest the following tableau to "County Chemist:"—

Self writing out "Accounts rendered"; porter snoozing on a bluestone cask; assistant reading a novel behind the "dispensing department"; senior apprentice punching his two juniors; all in a Jubilee waggon, borrowed from the "Stores."

DISPENSING NOTES.

[*The opinion of practical readers is invited on subjects discussed under this heading.*]

Dessertspoonful *v.* Two Teaspoonfuls.

SIR,—Would "Cottonopolis" say what he considers a dessertspoonful is equal to? I have always looked upon a dessertspoonful and two teaspoonfuls as equivalents, the difference between them being the same as between two and sixpence and half a crown. ECOSSE. (109/54)

An Examination Prescription.

SIR,—In your remarks on "Ferri Sulph's" difficulty with Minor prescription (107/46) you do not note the fact of the incompatibility of bismuth subnit. and sodii bicarb., and liability to bottle bursting. No doubt the prescription was given in examination to test candidate's knowledge regarding this point. If the bismuth, soda, and gum tragacanth are rubbed well together and hot water slowly added, the effervescence passes off and a fairly presentable, although rather thick, mixture is produced. Yours truly,
ECOSSE. (109/56.)

P. C. F. (110/32) also calls attention to this point, and gives another example, in which the application of heat will save some trouble, viz.:—

Mag. carb. pond.	3j.
Boracis	3j.
Mellis	3iv.
Glycerini	3iv.

[In the reaction which occurs the bismuth is wholly converted into carbonate with liberation of carbonic acid gas, the reaction being:—

$$2BiONO_3 + 2NaHCO_3 : Bi_2O_2CO_3 + 2NaNO_3 + H_2O + CO_2.$$

As about a fourth of the sodium bicarbonate is in this way neutralised, some dispensers use subcarbonate of bismuth instead of the subnitrate, but this course cannot be followed without sanction.

In the prescription given by "P. C. F." the borax reacts with the honey and glycerine to form boric acid and a metaborate. The acid then combines with the carbonate of magnesia.]

110/67. *Senior* writes:—"If such a prescription was handed to me I should refer, if convenient, to the prescriber, and at the Square should not hesitate to point out the unusual quantity of tragacanth to the examiner, whose reply, I think, would be, 'Use your own discretion.' Upon receiving such a reply I should use half the quantity (*i.e.* gr. xv.). I remember a candidate having to dispense a very similar prescription, in which pulv. trag. 3ij. was ordered, and *attempting* to use full quantity. But, surely, in that case pulv trag. co. was meant."

SIR,—I have tried "Ferri Sulph.'s" Exam. Prescription, and the only method by which I can get anything like a satisfactory preparation is as follows:—Mix the bismuth nit. with a little water; then rub the sod. bicarb. and pulv. tragac. in a mortar with the syrup, gradually adding the water. Finally, mix all together in the bottle.

There does not seem to be sufficient spirit in the tincture to form a good emulsion with the tragacanth.

TWENTY-ONE. (110/60.)

Private Prescriptions.

109/19. *A Country Chemist* (Scotland) sends us a photograph of a prescription which he has had to dispense. It reads as follows:—

Mistuss. ont. hemomet	3viij.

Sig.: 3ss. ter in die ex aquam.

Can anyone tell him what the preparation is?

A Citrate of Iron and Quinine Mixture.

SIR,—How should the following be dispensed so as to prevent a precipitate being thrown down, and what is the precipitate?

Ferri et quin. citrat.	3j.
Tinct. nucis vomicæ	3iss.
Acid. nitrohydrochlor dil.	3ij.
Inf. quassiæ ad	3vj.

M.

Yours, &c.,
DISPENSER. (109/30.)

[The precipitate which is formed in this case is derived from the tincture of nux vomica, and consists of fatty and extractive matter. The solubility of the double citrate is not interfered with. The citrate should be dissolved in 5 oz. of the infusion, the tincture added, then the acid, and lastly the remainder of the infusion. The mixture may be filtered if an improved appearance is desired.]

110/45. *Subscriber* (Armagh).—The mixture should not be colourless.

LEGAL QUERIES.

Messrs. F. Newbery & Sons recently received a proprietary medicine bearing one of the new 6*d.* "postage and revenue" stamps. Thereupon they asked the Board whether such stamps might properly be used for medicines. The reply was that "the only stamps that can be used for stamping medicines are the medicine-duty stamps."

39/107. *Vigilant.*—The statemcnt made by some patent-medicine proprietors that "Her Majesty's Commissioners of Inland Revenue have ordered the name of the proprietor to be engraved in white letters on a red ground" on the Government stamps is strictly accurate, though perhaps misleading. By paying for the dies and ordering a certain quantity of stamps Her Majesty's Commissioners will make this order on any one's behalf.

27/110. *Gibb & White.*—Your label describes the medicine as "for all neuralgic and rheumatic affections." This clearly brings it within the Medicine Stamp Act.

16/110. *Cautious.*—Your corn solvent label differs from those declared to be non-liable in this—that you make a definite declaration of its power to cure. On the other labels the customer is told simply to paint the corn and then to remove it by means of scissors or something. It does not appear certainly that the painting has anything to do with the cure. Your label, however, connects the two as cause and effect.

22/110. *J. S.*—No person other than a registered chemist and druggist may legally sell *by retail* cyanide of silver. Whether the transactions of the electroplater you refer to would be properly regarded as wholesale ones it is difficult to say. There is no restriction on the sale of muriatic, nitric, or sulphuric acids.

48/110. *S. W.*—All stamped medicines are currently described as "patent"; but this is an incorrect expression, and if anyone were to describe his proprietary article as patented, not having duly patented it, he would render himself liable to a penalty of 5*l.*

58/110. *J. S.*—You may not sell any spirit, either rectified or methylated, without licences. In the case of S.V.R., the Board of Inland Revenue have told us that they will not interfere in the case of sales by chemists to medical or scientific men of quantities not exceeding 8 oz., if purchased *bonâ fide* for medical or scientific purposes.

44/109. *Gentian.*—There has been no authoritative decision of wholesale trading, but we should regard the supply of drugs to medical men as within that definition. The business advertised appears to have been a drysaltery one, and if the proprietor do not call himself by either of the prohibited titles, nor sell scheduled poisons, he need not be qualified.

39/109. *Staveley.*—The sale of "Chlorodyne lozenges," not as patent medicines, by unregistered persons might or might not be regarded by a Court as an infringement of the Pharmacy Act. The question the Court would have to decide would be whether such lozenges could be reasonably regarded as "a preparation of morphia" or of some other poison. The presence of an infinitesimal proportion of some poison would hardly be regarded as bringing it within the law.

MISCELLANEOUS INQUIRIES.

106/62. *Durham.*—See reply to "Student," in our issue of May 14.

Estimation of Acid. Hydrocyan. Dil.—*Veritas* (100/31) asks two questions on this subject. The first is in reference to the alkalinity of the solution and the reaction which takes place during titration, and the second is why does the solution become acid as the reaction proceeds? *Reply*: The reaction is at the bottom of the whole matter, and is the first thing that must be understood by the student. If the volumetric solution of silver nitrate were added to a solution of hydrocyanic acid, cyanide of silver would be at once precipitated, because the following reaction takes place:—

(1) $$HCN + AgNO_3 = AgCN + HNO_3.$$

This process is a misleading one, for it allows free evaporation of hydrocyanic acid, and it requires the presence of an indicator. Liebig, however, observed that the double cyanides of silver and alkalies are soluble in water, but that they react with nitrate of silver to form insoluble cyanide of silver and nitrate of the alkali; consequently he proposcd that advantage should be taken of these facts to estimate the amount of hydrocyanic acid in *aqua amygdalæ amaræ*. The first step, therefore, is to neutralise the acid with alkali, thus:—

(2) $$HCN + NaHO = NaCN + H_2O.$$

A little litmus solution or alcoholic solution of phenolphthalein (we prefer the latter) is added, and as soon as the solution becomes blue in the former case, or crimson in the latter, no more alkali is added. It so happens, however, that the cyanide of soda formed affects the indicators, so that the change of colour does not prove that the whole of the hydrocyanic acid is neutralised. At this stage the Pharmacopœia directs the process to be proceeded with, and you continue to add the silver solution, when the following reaction takes place:—

(3) $$2NaCN + AgNO_3 = AgNa(CN)_2 + NaNO_3.$$

If the solution changes in colour that shows that the acid has not been fully neutralised, and more soda must be added, otherwise No. 1 reaction takes place and misleads you. Add the soda sparingly and from time to time as the colour disappears. Continue to add the silver solution until the precipitate formed in the coloured solution no longer dissolves. That shows that the following reaction has commenced:—

(4) $$AgNa(CN)_2 + AgNO_3 = 2AgCN + NaNO_3.$$

It is obvious, therefore, that in this case one molecule of nitrate of silver is equivalent to two of hydrocyanic acid.

108/62. *Subscriber* (Sydney).—See issue of March 26, page 401.

108/5. *Assistant.*—See present volume, page 398.

108/50. *Country.*—The article on white oils in our issue of April 9 will give you the information you require.

108/39. *Indagator.*—**Female Pills** (iron and pennyroyal).—The following formula may suit you:—Sulphate of iron, ʒj.; carbonate of potash, gr. xl.; powdered myrrh, ʒij.; oil of pennyroyal, ♏xx. Rub up the oil with the myrrh and the potash, then add the sulphate of iron, and mass with honey. Divide into 5-grain pills, of which two should be taken thrice daily.

Canchalagua.—*Dr. C. Mehu* writes:—"In reference to your note on this subject, permit me to inform you that my two memoirs on Erythrocentaurine are in the library of the Pharmaceutical Society. [Additions to the library, 1880–81; 1885 edition, page 291.] I may also mention that *Sabbatia angularis*, or *Chironia angularis* (American Little Centaury), also contains erythrocentaurine, according to M. Henneker (*American Journal of Pharmacy*, May 1871, page 207)."

108/60. *Ormonde.*—**Liq. Ergotæ Ammon.**—You may prepare this by either of the following methods:—(1) Macerate 1 lb. of crushed ergot with 10 oz. of spt. ammon. arom. for two days, then pack in a percolator, and when the percolate ceases to drop displace with water. Reserve this percolate, and continue percolation with 30 oz. of water.

Evaporate the watery percolate to the measure required to make 16 fluid oz. with the reserved percolate. Mix, and filter. (2) Crushed ergot, 1 lb.; strong solution of ammonia, 1 oz.; rectified spirit, 4 oz.; water, q.s. Mix the ammonia with 2 oz. of the spirit and 7 oz. of water. Moisten the ergot with this mixture, pack in a percolator, and after twelve hours allow to percolate with the remainder of the mixture until percolation ceases. Add water to the marc, and continue percolation until 10 oz. are obtained; reserve this portion. Percolate with other 20 oz. of water; evaporate to 4 oz. Dissolve in the reserved portion, add the remainder of the spirit, and filter. This method is the better, and, if conducted by the process of repercolation with 16 oz. of the menstruum, evaporation is avoided.

40/109. *Hyacinth.*—**Insects on Fruit-trees.**—Hellebore is generally recommended for destroying caterpillars on gooseberry or currant trees, but it is of very little use. Experienced gardeners believe in nothing but the finger and thumb. The preventive remedy is to well lime the trees in the autumn. Mr. Whitehead, in his reports on "Insects Injurious to Fruit Crops," recommends the trees to be syringed with a mixture of soft soap 7 lbs., quassia 6 lbs., and water 100 gallons.

109/18. *Physostigmatis* (Jamaica, W.I.).—**Sheep-dip.**—Tobacco-juice, 8 lbs.; hellebore (powdered), 6 lbs.; soft soap, 4 lbs.; arsenic, ½ lb.; water, about 15 gallons. This quantity is for a hundred sheep. Another:—Arsenic. 28 oz.; sulphur, 28 oz.; soft soap, 60 oz.; umber, 6 oz.; boiling water, 40 oz. This is also for a hundred sheep, and should be mixed with a large quantity of water—say, 40 gallons.

109/4. *H. B.*—**Shaving-cream** (almond paste).—Fresh and purified lard, 110 parts; solution of potash (26 per cent. KHO), 60 parts; rectified spirit, 5 parts; oil of bitter almonds, q.s. Triturate the lard and potash solution in a mortar, and allow to stand for twelve hours; then add the spirit and sufficient oil (with other perfume if desired), and triturate until the mass assumes a pearly lustre.

109/24. *Abash.*—**Paranaphthalene**, or anthracene, is a solid hydrocarbon which occurs in scales or monoclinic tabular crystals, and is obtained from crude anthracene (a coal-tar product). The crystals exhibit a blue fluorescence, are insoluble in water, sparingly in alcohol and ether, and dissolve easily in hot benzene. The empirical formula is $C_{14}H_{10}$, and the constitutional $C_6H_4.C_2H_2.C_6H_4$.

Allyl Iodide (C_3H_5I) may be prepared by heating together glycerine and phosphorus tetra-iodide, or a mixture of allyl alcohol, iodine, and amorphous phosphorus. The latter method is the more practicable. It is a colourless ethereal liquid, having an alleaceous odour, and is readily decomposed into bodies which give off irritating vapour. [The pungency of liniment or tincture of iodine made with methylated spirit is partly due to this.] Watts states that it has a specific gravity of 1·789 at 160° C. [? 16° C.], and boils at 101° C.

Isopropyl Iodide is a liquid oil, sp. gr. 1·700, and boiling at 89–90° C. It may be prepared by treating glycerine with iodine in presence of amorphous phosphorus. Its formula is C_3H_7I. You will obtain these chemicals through a wholesale house.

109/53. **Lamp-black.—Liquid Indian Ink.**—Make lamp-black into a paste with weak potash solution, and treat it with a large volume of water rendered slightly alkaline with potash solution. Collect, and well wash with cold water; then suspend it in water thickened with Irish moss or gelatine.

108/41. *T. T.*—**Quinine Hair Wash.**—Quinine sulphate, gr. 20; acid. sulph. dil., ♏ 20; glycerine, 1 oz.; eau de Cologne, 2 oz.; bay rum, 2 oz.; rose water, 11 oz. Mix the acid with the glycerine and dissolve the quinine in the mixture. Add the other ingredients in the order given. **Toothache Tincture.**—Tincture of pellitory, ℥j.; spirit of camphor, ℥v. M. This may suit you.

109/20. *Retrac* (Maidstone).—In translating the Latin passages given in the Preliminary examination, you write the translation straight off without interpolating the Latin phrases.

107/67. *Subscriber* (Aberystwyth).—**Quinine Mixture.**—A simple solution of sulphate of quinine in water with the aid of sufficient dilute sulphuric acid is best. If it is a coloured mixture that you require, the following may suit you: Quinine sulphate, ℈ij.; citric acid, ℥iss.; comp. tincture of cardamoms, ℥iss.; water to ℥xx. Dissolve the acid in the water, add the quinine and tincture, allow to stand for a day, and filter.

107/51. *D. D.* (Glasgow).—**Divi Divi** owes its dyeing and tanning properties to tannic acid. For the former purpose a decoction is made of it along with sulphate of iron, and the fabric is treated with a mordaunt.

231/15. *W. W.*—**Piles.**—Touching the piles with nitric acid is painful and not so satisfactory as the cautery (actual or thermocautery). The operation can be done under the local influence of cocaine, and is thus rendered practically painless. But it would be necessary to make up one's mind to lay up for ten days or a fortnight in any case, in order to avoid ill results and perfect the cure. The consensus of opinion is in favour of some form of cautery as being the most satisfactory and least painful method of dealing with internal piles.

110/44. *N.*—Muslin is rendered non-inflammable by dipping in a solution of 4 parts of borax and 3 of sulphate of magnesia in a pint of water. Solution of tungstate of soda is also used.

105/60. *Ye.*—**Urea Estimation.**—We have not heard of *Doremus's* method. Russell and West's method is one coming into use, and, like Squibb's and others, is based on the evolution and measurement of the nitrogen of the urea. The solution is made by dissolving 100 grammes of solid caustic soda in 250 c.c. of water, and when cold adding 25 c.c. bromine. But this solution keeps badly, and it is better to add the bromine in proper proportion to the soda solution when required for use.

Books.

Wanted by *Ignorant* (107/52), titles of works on "Chiropody."

107/37. *Dispenser.*—**Apothecaries' Assistants' Examination.**—Pereira's "Selecta e Prescriptis," Gerrard's "Materia Medica and Pharmacy," Bentley's "Structural and Systematic Botany," and Attfield's "Chemistry."

107/52. *Ignorant.*—"How to Use a Galvanic Battery in Medicine and Surgery." By Dr. H. Tibbits. (Churchill; 4*s.*)

W. W. (231/15) writes:—"I beg to thank you for reply *re* the book 'The Microscope in Botany.' I have since got Hillhouse's Strasburger's 'Handbook of Practical Botany,' and find it a capital work almost entirely devoted to the microscopic part of botany."

109/18. *Physostigmatis.*—A book which may suit you is Mr. H. R. Proctor's "Text-book of Tanning." (Spon; 10*s.* 6*d.*)

109/20. *Retrac.*—**Books for Preliminary Examination.**—White's "Cæsar," bk. i., price 1*s.*; White's "Virgil," bk. i., price 1*s.* (Longmans.) "Key to Cæsar," bk. i. to iv., 1*s.* 6*d.*; "Key to Virgil," bk. i. to vii., 1*s.* 6*d.* (Cornish & Sons, 297 High Holborn, London.) Barnard Smith's "Arithmetic," 4*s.* 6*d.* (Macmillan & Co.) Barnard Smith's "Metric System," 3*d.* Evers's "Arithmetic," 3*s.* 6*d.* Morell's "Grammar and Analysis, with Exercises," 2*s.* 6*d.* (Longmans.) Dalgleish's "Progressive English Grammar," 2*s.* (Simpkin, Marshall & Co.) Trotter's "Grammar and Analysis," 1*s.* (Collins, publisher.) Dunlop's "Latin Course," first year and second year, 6*d.* each. (W. & R. Chambers.)

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Price, including Fittings, 3/6 each.
Bottles alone, 1/6 each. Any part of the Fittings supplied separately to replace.

"Southall's New Lime Water Syphon ought to be a very useful addition to Druggists' Sundry Appliances. It serves not only for drawing off lime water clear, but also for any macerated tincture."—*Chemist and Druggist*, Nov. 15, 1885.



SOUTHALL BROS. & BARCLAY,
BIRMINGHAM,
MANUFACTURERS OF
The A1 COD LIVER OIL.
SOUTHALL'S SANITARY TOWELS (Patented).

Special Department for CHEMICAL APPARATUS.
Price Lists free on application. Special Discount to Chemists.

NEW REMEDIES, DOSES & USES.
Particulars of these, together with formulæ for Pills, &c., free on receipt of business address card.

WYLEYS' GELATINE COATED OVAL PILLS.
The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List of REDUCED PRICES on application.

POWDERED DRUGS. All ground in our own Mills, and of Guaranteed Purity.

EXTRACTS (ENGLISH).
CONCENTRATED INFUSIONS AND DECOCTIONS. GRANULAR EFFERVESCENT PREPARATIONS.
GELATINE COATED HORSE BALLS (PATENTED).

Forwarded on application { *PRICES CURRENT, LIST OF SPECIALITIES, PILL LIST (GELATINE OR PEARL COATED).*

WYLEYS & CO., COVENTRY.
LONDON ADDRESS—1a BURY STREET, ST. MARY AXE, E.C.

HIRST, BROOKE & HIRST, LEEDS,
MANUFACTURERS OF ALL KINDS OF
PHARMACEUTICAL PREPARATIONS.
MANUFACTURERS OF
ACETIC ACID—Very pure, and of fine flavour.
LIQ. AMMON. FORT., ·880—Free from unpleasant odour, and of full strength.
GRANULAR CITRATE OF MAGNESIA—In bottles or in 1-cwt. drums.
ORANGE WINE—Of finest flavour and quality, and specially suited for the preparation of Orange Quinine Wine.
WOOD NAPHTHA, CHARCOAL, and all products of the distillation of wood.
SAMPLES AND PRICES ON APPLICAION.

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J. A. WINK & CO., Ld.,
MANUFACTURING CHEMISTS.
Office and Warehouse—2 DEVONSHIRE SQUARE, LONDON.
Works—QUEENSFERRY, FLINTSHIRE.
SPECIALITIES—
MORPHIA ALKALOID,
IN POWDER AND CRYSTALS AND ALL ITS SALTS
CODEINE, PURE CRYSTALS and SALTS.
NARCEINE.
PAPAVERINE.
APOMORPHIA CRYSTALS and MURIATE.
THEBAINE.
MECONIC ACID.
And all other Opium Products and Fine Chemicals.
TELEGRAPHIC ADDRESS—"APOMORPHIA LONDON"
TRADE MARK.

Silver Medal at Inventions Exhibition 1885.



Eſtabliſhed
1798



Howards & Sons

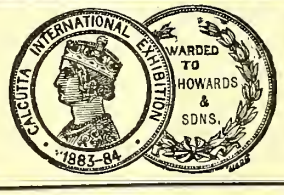
QUININE, CINCHONA ALKALOIDS,

Acetates of Soda & Potaſh.
Acids, pure.
Æthers, pure & methylated.
Antimony preparations.
Benzoic Acid & Benzoates.
Bicarbonate of Potaſh.
Bicarbonate of Soda (Howards').
Biſmuth preparations.
Borax & Boracic Acid.
Bromides of the Alkalies.
Camphor Bells, Blocks, & Flowers.
Citrate of Iron & Quinine, P.B.
Citric Acid & Citrates.
Cocaine and its Salts.
Corroſive Sublimate.
Ext. Cinch. Liq. P.B., & H. & S.
Ext. Cocæ Liq. P.B.
Hypnone.
Iodides of the Alkalies.
Iodoform, "leve," & cryſt.
Liq. Biſmuthi et Am. Citratis.
Magneſia.
Mercurials, Calomel, &c., &c.
Morphia Salts.
Rochelle Salt & Pulv. Seidlitz.
Spirit preparations.
Terebene.
Urethane. &c., &c.

AND OTHER PHARMACEUTICAL CHEMICALS.

Stratford, Eſſex.







Detailed Price Liſts on application.

IMPORTANT TO CHEMISTS & PATENT MEDICINE DEALERS

Large Profits and a Ready Sale. NO RISK.

BECK'S COMPOUND TONIC

HOP BITTERS

Composed of Hops, Buchu, Podophyllin, Dandelion, and other valuable ingredients.

IN HALF-PINT BOTTLES TO RETAIL AT 1/-

SOLE PROPRIETOR—

ALBERT N. BECK, WHOLESALE CHEMIST, HASTINGS.

PRICES—CASES OF 3 DOZEN, 22/- NET.

Free on rails in London. Cases and Packing 2/- extra, allowed in full on return.

Special Offer to large Purchasers.—If 6 dozen and upwards ordered, the Name of Retailer will be printed on Label, and 1,000 Handbills bearing Name and Address will be supplied, and also Show Cards.

TERMS:—CASH WITH ORDER OR TWO LONDON REFERENCES.

TOWLE'S CHLORODYNE

REVISED PRICE LIST.

	Retail. s. d.	Per Doz. £ s. d.
Towle's Chlorodyne	1 1½	0 8 6
Ditto	2 9	1 3 0
Ditto (3 fluid oz.)	4 6	1 16 0
Ditto (8 ,,)	11 0	4 13 0
Liq. Chlorodyni (*Original and only Genuine Preparation.*) ¼ lb.		1 10 0
Ditto ditto ½ lb.		2 14 0
Ditto ditto 1 lb.		4 16 0
Winchester Quarts (6 lb.) 7/6 per lb., bottles free.		
Towle's Antibilious Pills	1 1½	0 8 6
Ditto	2 9	1 3 0
Towle's Chlorodyne Lozenges } ... ... } Jujubes }	0 7½ / 1 1½	0 5 3 / 0 8 6
Ditto in bulk, bottles free, containing 1 lb., 2/9 each.		
Ditto ditto 1 lb. 10oz., 4/6 ,,		
Ditto ditto 4 lb., 10/ ,,		
N.B.—The Commissioners of Inland Revenue in requiring the Proprietors to stamp these Lozenges and Jujubes, before sending them out, will allow them to be sold by the retailers without further duty, providing they are simply wrapped in *paper*, and not enclosed in a *box*, *bottle*, or *packet*.		
Thornton's Celebrated Toilet Cream	1 0	0 9 0
Ditto	1 6	0 14 0
Ditto	2 6	1 4 0
Amboline (Registered Trade Mark) ...	2 6	1 4 0
The Thornton (Red) Lotion (Stamp'd)	2 6	1 4 0
Thornton's Paragon Hair Wash	1 0	0 9 0
Ditto	2 6	1 4 0

POSTERS, BILLS, AND SHOWCARDS ON APPLICATION.

£5 worth (assorted or otherwise) Carriage Paid.
7 lb. Lozenges and upwards stamped with Chemists' own name, free of charge.

A. P. TOWLE & SON,

75 Back Piccadilly, Manchester, *December* 1886.

OBTAINED OF ALL PATENT MEDICINE AND WHOLESALE DRUG HOUSES.

NOTICE.

THE HOP BITTERS CO., LIM., CAUTION

Chemists and Patent Medicine Vendors against stooping to the dishonourab'e practice of selling counterfeits and imitations of Hop Bitters, thereby deceiving the public, and trading upon their property and reputation, as forthwith they will FULLY PROTECT THEIR RIGHTS, and deal with such unprincipled traders to the FULLEST EXTENT OF THE LAW.

THE HOP BITTERS COMPANY, LIMITED, 41 FARRINGDON ROAD, LONDON, E.C.

MESSRS. J. ATKINSON & CO.,

Of 5 FINSBURY SQUARE, LONDON, Manufacturers of HIGH-CLASS PERFUMERY,

Beg to inform the Trade that they are in no way connected with the firm of Messrs. J. & E. Atkinson, of Old Bond Street, but sell their Goods upon their own merits, viz.:—QUALITY AND CHEAPNESS.

BEST & SAFEST DENTIFRICE.

OS TOOTH BLOCK

REGISTERED TRADE MARK.

OSCAR SUTTON & CO., Preston, Lancashire.

NOTICE.—We have had so many enquiries for O.S. Tooth Blocks *loose without boxes*, that we have put them on the market in packets of one dozen, and they are designated No. 0 (please note this when ordering).

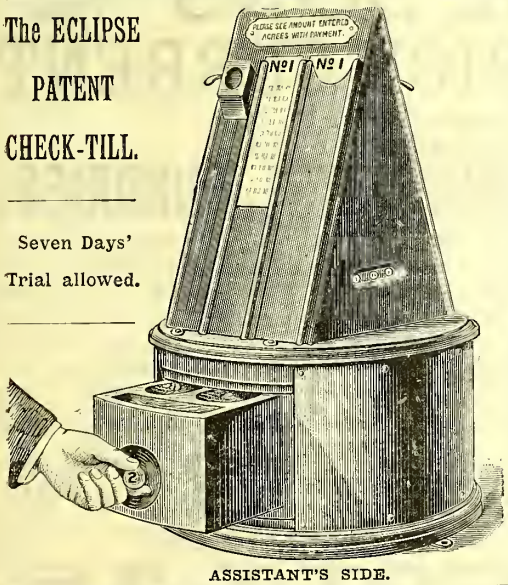
Our O.S. Tooth Blocks, in patent metallic boxes, designated No. 1, are now supplied with sunk recess, into which Chemists can affix their own labels. Appropriate labels in dark leatherette, with Chemist's name, &c., in gilt lettering, can be supplied sufficient for 1 gross at 5*s.* (actual cost to us).

Chemists' names can be stamped on each Block free of charge on any quantity, the only expense being first cost of dies, at 6*d.* per letter ordered.

A sample, post free, for two stamps.

The ECLIPSE PATENT CHECK-TILL.

Seven Days' Trial allowed.



ASSISTANT'S SIDE.

THE ECLIPSE PATENT CHECK-TILL.

This Invaluable Till, formerly manufactured by Mr. A. E. KENNARD (KENNARD & STEER), 10 Bush Lane, is now supplied, with improvements which render it complete and unrivalled, by THE ECLIPSE PATENT CHECK-TILL COMPANY, LIM.

The advantages of this Invention over any of its kind are as follows:—

1. The Till is only 16 in. in diameter and 25 in. in height, made of mahogany to suit the furniture, with brass cylinders. Being conspicuous, can be seen from all parts of the shop, and perfectly safe, being always locked "automatically" when not in use.
2. Only half column of Cash-Sheet is seen at one time, and the amount entered thereon by the assistant each time is turned facing the customer before it is possible to deposit the cash in the drawer.
3. A Coin Exhibitor which is intended for Two Shilling and Half-Crown pieces, thus saving all disputes as to the particular coin passed.
4. A separate column on left-hand side of Cash-Sheets for credit sales, petty charges, change, &c.
5. Every time, before the Till is opened, it must necessarily rotate, same time indicating the number of times the Till is opened during the day.
6. It will check every penny taken and paid better than keeping a cashier and using check-books.
7. It occupies very little more time than the ordinary Till.
8. If only part of the amount is put in, it will show how much has been withheld.
9. The Till cannot be opened without the bell being sounded.
10. One movement of this Machine instantly produces the following results:—1st, rings a bell; 2nd, indicates the number of times the Till has been used; 3rd, brings into full view before the customer the amount of his or her purchase entered on Cash Sheet; 4th, unlocks the drawer. It also shows the particular coin taken when deposited in the Coin Exhibitor.

A receptacle for Cheques and Bank Notes is provided, if specially required.

NOTICE.—This is the only Till that possesses the above combination of results.

Price of the Till complete, £6 6*s.* Without Coin Detectors, £5 5*s.* Extra size (18 in. cylinder), for large cash trades, £7 7*s.* Cash Sheets, 2*s.* 6*d.* per ream.

For detailed prospectus, or further information, apply to

THE ECLIPSE PATENT CHECK-TILL COMPANY, LIMD.,
SUFFOLK HOUSE, LAURENCE POUNTNEY HILL, E.C.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/ per gallon; in 2-Gallon Jars, 5/6 per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

25

DOUGLAS'S "UNIQUE" CONCENTRATED

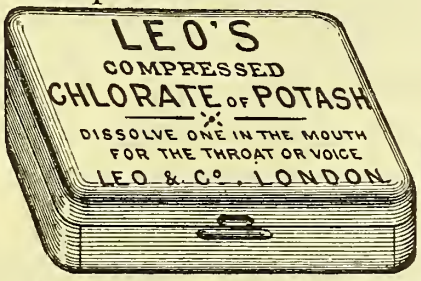
DRY EXTRACT OF MALT POWDER

Wholesale Agents—
J. W. DRYSDALE & CO.,
4 BURY STREET, LONDON, E.C.

Price in Bottles (2/9) 24/ dozen, subject.
Sample bottle free by post 30 stamps.
WHOLESALE OF ALL MEDICINE VENDORS.

For further particulars *vide* CHEMIST AND DRUGGIST, Oct. 30, pp. 584 & xi.

Compressed Chlorate of Potash & Chlorate of Potash and Borax.



LEO & Co., LONDON.

Put up in elegant gilt boxes @ 1/6 doz., also in 1-lb. tins @ 1/6 each, net.

Supplied by all Wholesale Druggists. (SPECIFY LEO)

A sample dozen boxes will be sent, postage paid, to any Chemist, on receipt of 1/9 in stamps, or 1-lb. tin, 2/-.

1-lb. tins, 1/6 net.

These afford the largest profit of any cheap Compressed Goods in the Market.

LEO & Co., 4, Bury Street, St. Mary Axe, E.C.

Boxes, 1/6 dozen net.

NOW READY **J. SANGER & SONS'** NOW READY

NEW & REVISED PRICE CURRENT

With over 300 Illustrations.

IT WILL BE FOUND TO BE A MOST COMPREHENSIVE LIST OF

PROPRIETARY MEDICINES, DRUGGISTS' SUNDRIES,

PERFUMERY, LOZENGES,
MINERAL WATERS, &c.,
AND WILL COMPARE FAVOURABLY WITH ANY OTHER LIST AS TO
PRICES CHARGED.



Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

POST FREE ON RECEIPT OF BUSINESS CARD.

AGENCIES OF ALL KINDS UNDERTAKEN ON FAVOURABLE TERMS.

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.

THE SPECIAL ATTENTION OF THE TRADE IS CALLED TO

BENZINE COLLAS,

Which is acknowledged on all hands to be the most reliable Preparation for removing Grease, Oil, Tar, Wax, or Paint from every description of Wearing Apparel or Household Stuffs. It neither injures the colour or texture, nor leaves any odour or stain. It is neatly got up, and is a most saleable article.
Observe the word "COLLAS" on label and cap.

1,000 HANDBILLS, with NAME and ADDRESS, will be printed for any CHEMIST who gives an order for

£1 WORTH OF BENZINE COLLAS,

At the following prices, viz.:—
6d. Size, 4s. per dozen, subject to Discount; 1s. Size, 8s. per dozen, subject to Discount; 1s. 6d. Size, 13s. per dozen, subject to Discount.

Special Quotations to Shippers and Large Buyers on application to

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.

26

American Recess-Labelled

SHOP BOTTLES.



These Bottles are made with a Recess for the Glass Label, which prevents the Labels from being broken in contact with other Bottles. They are always in their proper position, and are protected from acids, &c.

Send for Price Lists and other information to

THE GLASGOW APOTHECARIES CO.

32 & 34 VIRGINIA ST.,

GLASGOW, SCOTLAND.

DISPENSING BOTTLES AND PHIALS.

Special attention is called to our "New Crystal Blue Tinted," being handsome colour and clear glass. We supply them, 3 and 4 oz., 8/; 6 and 8 oz., 9/ per gross.

A sample bottle forwarded on application.

WHITE MOULDED PHIALS AT VERY LOW PRICES.

I. ISAACS & CO.,

GLASS BOTTLE MANUFACTURERS

25 Francis Street, Tottenham Court Road, London, W.C.

Established upwards of 50 years.

A REQUISITE FOR EVERY CHEMIST.

THOMPSON'S "EXCELSIOR"

GELATINE PILL-COATING MACHINE.

(REGISTERED.)

This is the first and only perfected Machine introduced of British manufacture for Gelatine Pill Coating (see "Chemist and Druggist's Diary" for 1887, page 246). The Machine is now supplied on a smaller scale, and is constructed in such a way that prescription pills may be made, coated, and be perfectly dry to send out in half-an-hour. The importance of this advantage will be apparent to all Dispensing firms.

Price of Small Machine, with 12 slides and dipping pan, is £7 10s.; Hot Air Director, 10s. extra.

FOR FURTHER PARTICULARS APPLY TO

JAS. ROBERTSON & CO.,

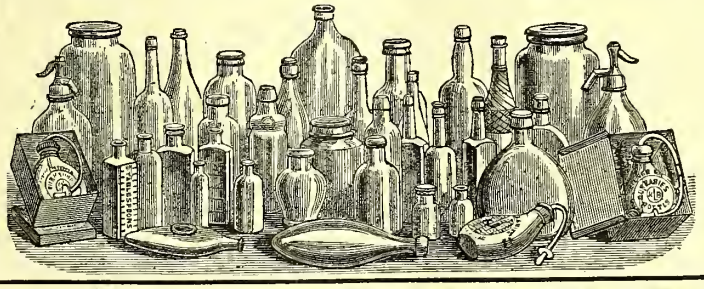
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Dispensing,
Drugs, Oils,
Mineral Waters,
Perfumery,
Patent Medicines,
&c., &c.

KILNER BROTHERS,

No. 18 Gt. N. GOODS STATION, KING'S CROSS, LONDON.



BOTTLES

FEEDERS in immense variety of styles.
Best Quality.
Low Prices.
Lists on application.



THE HEART SCENT BOTTLE

FOR SALTS (REGISTERED) FOR PERFUME

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

A LONG DESIRED REMEDY.

The Caps for these Bottles will be fitted with **Patent Indestructible Washers**, which entirely resist the action of Ammonia, thereby effectually preventing the corrosion of the Cork and the inevitable deterioration of the Salts.

Prices as follows, Plain or Fluted:—WHITE, 21/- per gross; COLOURED, 24/- per gross.

If put up in Dozen Boxes, 2s. per gross extra.

Orders may be sent to the Principal Wholesale Houses, or to the Patentee and Manufacturer,

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS, THE OVAL, CAMBRIDGE HEATH, E.

N.B.—A remittance must accompany all orders.

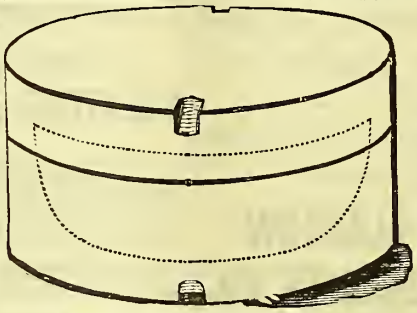
27

WILLIAM TOOGOOD'S
SPECIALITIES.

WAREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S
IMPROVED PATENT
EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6 per doz.

THIN for DISPENSING—

½	¾	1	1½	2	3	4	6	8 ounces.
1/7	1/8	1/10	2/-	2/4	3/-	3/8	5/-	6/- per doz.

TOOGOOD'S
BURNT-IN POTS,
FOR COLD CREAM, TOOTH PASTE, &c.

ARTISTIC DESIGNS AND NEW SHAPE JARS.
Samples and Prices forwarded upon application.

TOOGOOD'S
GRADUATED MEASURES.

OF A VERY SUPERIOR QUALITY.
CONICAL OR CYLINDRICAL. STOUT AND ACCURATE.

℥j.	℥ij.	℥ss.	℥j.	℥ij.	℥iij.	℥iv.	℥vj.	℥viij	℥x.	℥xx.	℥xl.	℥lx.
6/6	8/6	6/-	7/-	8/-	10/-	11/6	15/-	16/-	18/-	25/-	36/-	72/-

STAMPED, 3/- PER DOZEN EXTRA.

TOOGOOD'S
BOXWOOD-TOP CORK BOTTLES

Are all sent out washed and dried, ready for immediate use.

TOOGOOD'S
MEXICAN SQUARES.

The most Showy Bottle in the Trade for all Toilet Requisites, as Hair Washes, Face Lotions, and Tooth Preparations. *Samples and Prices upon application.*

TOOGOOD'S
CORN-SOLVENT BOTTLE.

2-dram Actinic Green Round Shouldered Vial, with Boxwood Top, Cork, and Camel Hair Pencil, in White Enamel Slide Boxes, price 18/- per gross.

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POISON BOTTLES.

ACCURATE AND STRONG. SEXAGON SHAPE IN DARK BLUE, ACTINIC GREEN, OR FLINT GREEN COLOUR. FLAT SQUARE SHAPE, IN DARK BLUE COLOUR.

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Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

PLAIN COVERED POTS

SUPERIOR QUALITY.

Per Dozen	½ oz.	¾ oz.	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
White Ordinary - -	1 4	1 5	1 6	1 8	2 0	2 4	2 10
With Screw Covers	1 10	1 11	2 0	2 2	2 6	3 0	3 6
Thin, for Dispensing -	1 5	1 6	1 8	1 10	2 2	2 8	3 2
Thick, for Perfumery-	1 4	1 5	1 6	1 8	2 0	2 4	3 2
White Ordinary, with Patent Keyhole notches for Elastic Bands, as shown below	1 6	1 7	1 8	1 10	2 2	2 6	3 0

ELASTIC BANDS FOR ABOVE.

For 1 dr. to 1 oz., 1/6,
For 1½ oz. to 4 oz., 2/3
per gross.



ELASTIC BANDS FOR ABOVE.

For 1 dr. to 1 oz., 1/6,
For 1½ oz. to 4 oz., 2/3
per gross.

S. MAW, SON & THOMPSON,

7 to 12 ALDERSGATE STREET, LONDON.

PROCTER'S **LIQUID GLUE** PROCTER'S

A PERFECT CEMENT.

MENDS EVERYTHING:

Wood, Glassware, China, Earthenware, Crockery, Porcelain, Leather, Coral, Celluloid, Ivory, &c.

LARGEST BOTTLE. BEST VALUE.

No preparation or heating required. Always ready for use.

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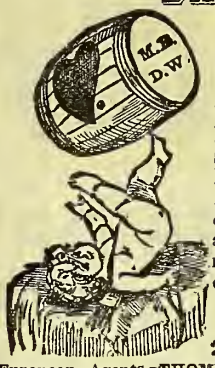
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The Mormon Elder's

DAMIANA WAFERS.



The most Powerful

INVIGORANT

Ever Produced.

Permanently Restores those Weakened by Early Indiscretions. Imparts Youthful Vigor. Restores Vitality. Strengthens and Invigoretes the BRAIN & NERVES. A Positive cure for *IMPOTENCY* & Nervous Debility. *Prompt, Safe* and *Sure.* 4*s.* per box, 6 for 20*s.* mailed to any address in the World on receipt of price, *Send for Circular*

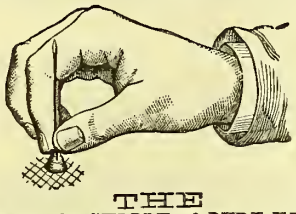
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202 Grand St.. New York.

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Trade Mark.



Registered.

THE

ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,

12 PALL MALL EAST, LONDON, S.W.

SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.

Tubes, 2*s.* each ; Half Tubes, 1*s.* each. Pomade in vials, 5*s.*

HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Three Tubes, two-thirds full, 5*s.*; Tubes one-third full and Lancet-charged Points, 1*s.* each ; Pin-points, 1*s.* 1*d.* each. Eighteen Charged Small Points, 5*s.* Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1*s.* per dozen. Vaccinations daily, between the hours of 12 and 2, by the Consulting Physician, at the uniform fee of a guinea. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to

EDWARD DARKE, Secretary.

Office hours, 10 *to* 4*; Saturdays* 10 *to* 2.

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SPIRITS OF WINE.

60 o.p., 20/3 per gall. ; 56 o.p., 19/9 per gall.

1/ *per Gall. Discount for Cash with order.*

Further allowance for quantity. STEAM STILLS ONLY.

GEORGE PHILLIPS & CO.,

ST. ANDREW'S DISTILLERY, CLERKENWELL RD.,

LONDON, E.C.

BURROUGH'S *Spiritus Rectificatus, P.B.* **SPIRITS OF WINE** 5 galls. 56 o.p. at **19/1 Cash.** The BEST English Grain Spirit, Free from Fusel Oil, Chemically Pure. *Special Quotation for Quantity.*

ORANGE WINE, MEDICINAL SHERRY. AT LOWEST PRICES.

JAMES BURROUGH, LONDON, S.W.

METHYLATED SPIRIT & FINISH

Supplied of the best quality in wholesale quantities by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

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SEDDON'S GELATINOUS OIL

Supersedes all others, and lasts ten times as long as ordinary Oils.

It is the best, most economical and perfect lubricant ever produced for all kinds of Carriages, Omnibuses, Cars, Cabs, Carts, Rullies, Waggons, and every description of Agricultural Implements, Steam Threshing Machines, Portable and Traction Engines, &c.

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As a Harness Oil it has no equal, also for softening, preserving, and waterproofing Carriage Tops, Leather Aprons, &c., making them much more durable, and giving them an appearauce almost equal to new. MANUFACTURED BY

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CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & ½ Packages

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ASPINALL'S ENAMEL.

READY FOR USE.

COLOURS EXQUISITE, SURFACE LIKE PORCELAIN.

For art furniture, shelves, wicker and basket tables, chairs, hat stands, umbrella stands, milking stools, Venetian blinds, hot-water cans, bird cages, brackets, bedsteads, buckets, &c.

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Any Shade, Tint, or Colour made to pattern at one hour's notice.

Vermilion	Drab	Dark Oak
Flamingo Red	French Grey	Quaker Blue
Dark Red	Olive	White
Royal Mail Red	Coral (Pink)	Ivory
Sealing Wax Red	Hedge Sparrow's	Green
Black	Egg Tint	Turquoise
Sage Green	Heliotrope	Peacock Blue
Japanese Green	Smoke	Electric Green
Pea Green	Straw	Chocolate
Blue	Orange	Bronze
Terra-Cotta	Lilac	Fawn
Canary	Myrtle Green	Primrose
Maroon	Indian Yellow	Arabian Brown
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Price in tins, 2*s.* 6*d.* and 1*s.* 3*d.*; post free, 3*s.* and 1*s.* 6*d.* A reduction made for half-gallons and gallons of Enamel.

A. A. and Co. have succeeded in producing also a special Enamel for baths that will stand boiling water. For years past this has been attempted by many scientific men in the trade, but they have all failed. This is specially recommended, and being ready for use, any lady or gentleman can apply it, and thus save the expense of sending the bath to be stoved. Colours: snow white, eau de Nil, flesh colour, &c. Price 25*s.* per gallon; can be had in tins, 3*s.* 6*d.* and 1*s.* 9*d.*, post free. All orders for *Bath Enamel* should be very *distinct*. Subjoined are a few of numerous testimonials. All originals can be seen at the Enamel Works, Peckham.

Every purchaser of *Six* tins of *ordinary Enamel, not* Bath, will receive *Seven*, which will be sent post free on receipt of P.O. for 9*s.*

The Marchioness of Salisbury says, "The Enamel I ordered from you answers very well."

The Countess of Loudoun says, "I am much pleased with the Enamel paint. It is very satisfactory."

The Countess of Norbury says, "I have lately used your snow-white Enamel paint, and have been thoroughly satisfied with my experience of it."

The Countess Ferrers says, "I have found your Enamel paint excellent for decorating wicker-work and wooden articles. I have recommended it to Lady Burdett."

The Viscountess Clifden says, "Your enamel paints are very satisfactory. I shall feel obliged if you will send me . . ."

Lady Brooke says, "I have much pleasure in testifying to the excellency of your Enamel paints."

Lady M. Forester says, "I am happy to say I have found your Enamel paint very satisfactory."

Lady Howard of Glossop says, "I have much pleasure in recommending your Enamel paint, which I have used in all colours, and found durable and effective."

Lady D. Nevill says, "I have been thoroughly satisfied with your Enamel paint, which I like extremely."

Lady Macgregor says, "I have much pleasure in highly recommending your Enamel paints. The colours are beautiful, and a great convenience is that this paint dries so quickly."

Lady Grantham says, "I have much pleasure in recommending your white bath Enamel, which I have used with great success for several baths."

Hon. Mrs. Eason Wilkinson says, "My mother, Lady Decies, is at present abroad, but I myself have used your Enamel paint, and consider it most satisfactory in every respect."

"The thrifty should visit Aspinall's stall and see a little wicker chair and table painted with Aspinall's Enamel. They are excellent illustrations of its worth in renovating."—*Queen.*

"Send for Mr. Aspinall's lovely paints; there is no need for any one to have an ugly article about them nowadays."—*Lady's Pictorial.*

"Get some of Aspinall's Black Enamel from Hollydale Works, Peckham, or his flamingo red."—*Housewife.*

"The best paint for baths is Aspinall's White Bath Enamel."—*Bazaar.*

"Aspinall's Black Enamel is simply perfect."—*The Lady.*

"Use Aspinall's Black Enamel."—*Lady's World.*

Prize Essay on Aspinall's Enamel for Home and Charitable Purposes.

Among the many wondrous things
The minds of folks that trammel,
I sing of homes made fresh and gay
With "Aspinall's Enamel"!

No art's required to lay it on;
The willing hand is able
To renovate, to beautify,
Bath, can, or chair, or table.

Nor do its varied polished shades
The house alone adorn;
The shady nook it lightens up,
Bedecks the velvet lawn.

And if it's welcome to the rich,
Whose homes were bright before,
Think how its brilliant hues will change
The dwellings of the poor.

The infirmary ward, the dull sick-room,
Where pain and sorrow lie,
With pleasant tints may soothe and cheer
The sufferer's weary eye.

Lastly, its price is wisely placed
Within the reach of all;
So rich and poor may join in praise
Of Messrs. Aspinall.

Another of the essays, showing it is a boon to all classes, came from an unknown cottager:—

Aspinall's Enamel, where hast thou been?
Millions have been waiting thee to be seen.
Now that thou wilt this day declare
For baths none other can compare;
Damp walls for years were to be seen,
When done with thee art dry and clean;
Hot water using leaves no line,—
Makes no impression not in time;
For wear it stands before all others;
It should have been bought for our mothers,
For manual labour it do save;
Thanks for this blessing Almighty gave.

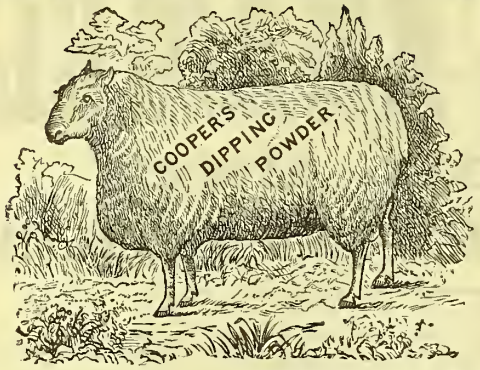
"There is no home in England, however *noble* or however *humble*, that cannot be made brighter and more cheerful by the use of this delightful invention. No house-proud lady will be without it, for the shabbiest object can be made into an ornament, an old bracket like carved ivory, a picture frame like polished ebony, and one of our own children can do the work, which is simply a pleasure."—*Vide Daily Press.*

Home, sweet, sweet home, can sweeter far be made
With "Aspinall's Enamel" Paint displayed
On shelves and brackets, wicker-work and doors—
On all things, from the ceilings to the floors.

An assorted half-gross will be sent carriage paid to any Railway Station at 9s. 6d. per dozen. All printed matter supplied free of charge.

ASPINALL'S ENAMEL WORKS, PECKHAM, LONDON, S.E.

COOPER'S SHEEP DIP.



Only Original Powder Dip.

Used on 50,000,000 SHEEP a YEAR.

SOLUBLE IN COLD WATER,
THE CHEAPEST, SAFEST, AND BEST
FOR TICKS, FLY, SCAB,
And for all other Sheep Dipping purposes.

UNEQUALLED AS A DIP FOR LAMBS.

CAUTION ☞ As the result of the great and increasing sale of this Dip several injurious imitations have recently been placed upon the market. It cannot be expected that these will give the good results which always follow the use of Cooper's Sheep Dipping Powder, which has
STOOD THE TEST OF HALF A CENTURY.

COOPER'S FLY POWDER,

For Preventing the Fly Striking Sheep and Lambs, Destroying the Maggot, &c.

In 1 lb. packets to retail at 6*d.*, and 2½ lb. perforated Canisters to retail at 1*s.* 4*d.*

SPECIALLY LOW QUOTATIONS FOR FLY POWDER IN BULK.
Samples on application.

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WILLIAM COOPER & NEPHEWS, M.R.C.V.S.,
Chemical Works, Berkhamsted, England.

See Index to Advertisements, pp. 15—17.

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INSECT POWDER

Imported and freshly ground at their own mills from *Closed* Flowers.

In bulk, or in 6*d.* and 1*s.* tins, with perforated rotary top, or in Enamelled Metal Boxes (Savars).

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Manchester, Birmingham, Montreal, Paris, Sydney, and Victoria, British Columbia.

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"It is the most certain remedy I have ever tried. Little pellets about, the size of a pea are put in the rat holes or in their runs. I destroyed over 200 rats from one dressing with it."—C. Cook, Grange Farm, Ellesmere, Salop. It is, without doubt, the best ever introduced. Price 6d., 1s., 2s., and 3s., of Chemists.

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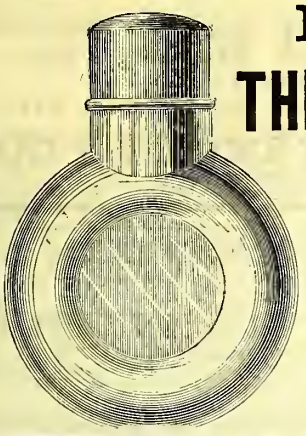
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DAY & SONS' "ALTERATIVE POWDERS," for Horses. Price 3/6 per Canister containing one dozen.

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UNIVERSAL MEDICINE CHEST, PRICE £2 4s., carriage paid.
which contains above five, together with four other, matchless medicines, and easy guide, "Everyday Farriery."

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THE WATCH SMELLING-SALT BOTTLE.

These Bottles are fitted with BEST SCREW NICKEL CAPS, lined with Washers, and are the most wonderful value ever offered. A trial order will prove this fact.

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The annexed Illustration shows exact size of above-mentioned Bottle.

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SAVARS CUBEB CIGARETTES.

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Cubebs, Stramonium, and Cannabis Ind. (soothing). Relief in Asthma, Throat Cough, Bronchitis, Influenza. A specific against Fogs.

Boxes (12) 1*s.*, 9*s.* per doz.; (36) 2*s.* 6*d.*, 24*s.* per doz.

Full Directions.

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Savaresse's Capsules of membrane each containing 15 drops Pure Maranham Copaiba Balsam, or, also of membrane, each containing 10 drops Purest Yellow Sandal Wood Oil. The efficacy of these valuable medicines is due to the absolute purity of the Balsam or Oil, and to the very gradual solvability of the membrane as compared with gelatine.

Copaiba, 2*s.* 6*d.*, 18*s.*, doz. Sandal, 4*s.* 6*d.*, 36*s.* doz.

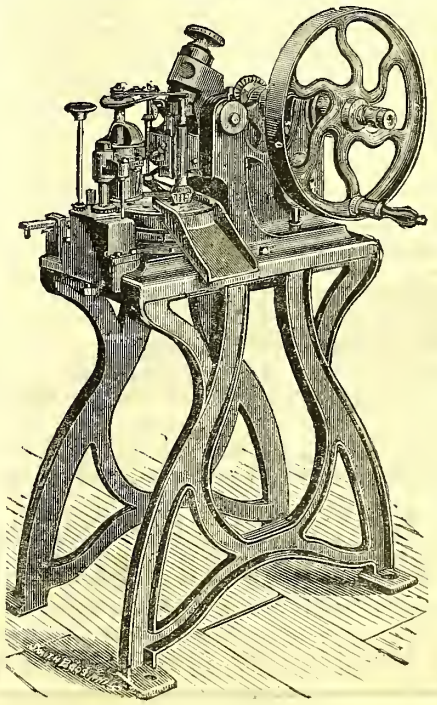
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EQUAL TO AND CHEAPER THAN VASELINE.
SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.
GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.
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For SHAVING without SOAP, WATER or BRUSH,
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Preferred to all Makes hitherto used.
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Free by post, to any address in the United Kingdom, for prepaid orders only.
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Genuine are sealed with guarantee of absolute purity and highest quality over the manufacturer's signature. This brand of Essential Oils is now recognised throughout the world as the highest quality manufactured.
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In 1*d.* 2*d.* 3*d.* 6*d.* and 1/ Packets.
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Specially brewed for Quinine Wine, does not deposit. Is well adapted for Export, as it will keep good in any climate. In casks, 13, 27, 56, 112, 140 gallons; small casks 3*s.* 9*d.* per gall., carriage allowed. In wine bottles (not less than 3 doz.), at 9*s.* per doz., including bottles. Cases extra and returnable.
Sample six stamps. Special quotations to large buyers.
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Black Indiarubber Teat and Tubing, Bone Shield, and Wood-top Cork (plug running through Cork).
Price, 21s. gross net cash. Carriage Paid on gross lots.
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THE ONLY MEDAL AWARDED FOR THIS SPECIALITY
CHLORIDE OF LIME!
IN AIRTIGHT WATERPROOF & ODOURLESS PACKAGES
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THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.
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THE *Most Admirable* TEA @ 2/- per lb
Sold only by
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THE HUSK & SCOUR IN LAMBS & CALVES CURED BY THE DEVONSHIRE COMPOUND.
A distinct preparation from the Devonshire Oils, pronounced to be a sovereign remedy which never fails to cure this deadly disease.
In Bottles, 2/-

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FOR CATTLE HORSES COWS CALVES SHEEP LAMBS DOGS &c
Both for Outward and Inward Use.
MANUFACTORY WELLINGTON, SOM
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THE GREAT REMEDY FOR ACCIDENTS AND ANIMAL AILMENTS
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SEE THOUSANDS OF TESTIMONIALS.

Anyone vending an Article called "DEVONSHIRE OILS" without the Signature of RICHARD CORNER will be proceeded against.

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PRICE LIST.

	Duty Paid, Net.	In Bond.		Duty Paid, Net.	In Bond.
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BARBER'S ORIGINAL CRIMSON INK

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WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.
Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., 6 Worcester Drive, Club Moor, LIVERPOOL

Can be obtained through any of the Wholesale Firms, or from the Proprietors, G. BARBER & CO., Club Moor, Liverpool.

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1*s.* 6*d.* and 2*s.* 6*d.*

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

AYER'S

RECAMIER PREPARATIONS

FOR THE COMPLEXION.

Positively made from a formula used for forty years by Madame Recamier, the noted beauty of her day, and never before manufactured for sale. Used daily, to the exclusion of all other articles of a like nature, by Mesdames Adelina Patti, Sarah Bernhardt, Lillie Langtry, Mrs. James Brown-Potter, and hundreds of others. For terms to the trade, and for sale at retail, apply to

The AMERICAN EXHIBITION, LONDON, Column B, No. 34.

RECAMIER CREAM—A Curative. RECAMIER BALM—A Beautifier. RECAMIER POWDER—For Ladies and Infants, and Gentlemen after Shaving.

Home Office—39 & 41 Park Place, New York City, U.S.A.

IMMENSE SALE.

SOLD EVERYWHERE.

WOODS' AREGA NUT TOOTH PASTE,

As used and recommended by Madame Marie Roze, the Prima Donna.

PRICE, 6d. and 1s. per Pot.

CAUTION.—SEE "WOODS, PLYMOUTH," ON EACH POT.

Pattison's Bath Gloves

30 VARIETIES AT FROM 2/- PER DOZEN PAIRS.

Lists on application.

ORIGINAL MANUFACTURER, [1]

GEORGE PATTISON, 139 St. John St. Road, LONDON, E.C.



WALNUT POMADE.

A Triumph as a Hair Restorer.
An immediate effect.
Pleasant and Harmless.
Four Colours—Golden, Light Brown Dark Brown, and Black.
Pots—¾ oz. (1/6) 12/ per doz.
1½ oz. (2/6) 20/ per doz.

DEPILATORY POWDER

FOR REMOVING

SUPERFLUOUS HAIR

Speedily and effectually, without injuring the Skin.
Retail, 1/; Wholesale, 8/ per doz.

AGENTS:—Barclay; Edwards; Maw; and Sanger.

SOLE PROPRIETOR—

EUGENE MORPHY, 70 South Audley St., Mayfair, LONDON.

A1 BRAND A1 BRAND **SHIRLEY'S** A1 BRAND A1 BRAND

MENTHOL

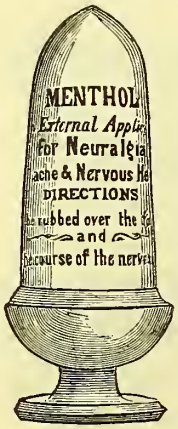
"WHEN FOUND MAKE A NOTE OF!"

CHAS. DICKENS.

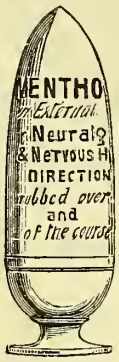
MENTHOL



A1 BRAND A1 BRAND **SHIRLEY'S** A1 BRAND A1 BRAND



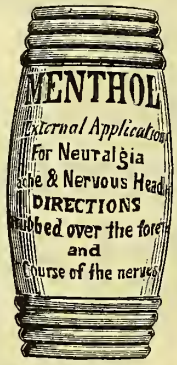
No. 6.
Boxwood Pedestal,
5/ per doz.



No. 11A.
6d. Boxwood Pedestal,
3/6 per doz.



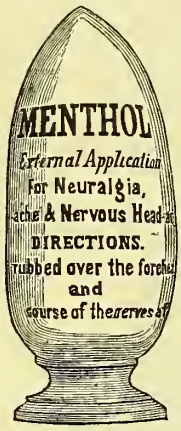
No. 17.
Draughtsman Shape, Boxwood,
12 in a Glass outer,
6/ per doz.



No. 7.
Boxwood, Barrel Shape,
6/ per doz.



No. 9.
Boxwood, Skittle Shape,
6/ per doz.



No. 14A.
1/ Boxwood Pedestal,
6/3 per doz.

These diagrams are full-sized representations of seven of the most saleable patterns of SHIRLEY'S A1 BRAND MENTHOL, with full directions, uses, &c., PRINTED on the boxes. Large buyers (who are put upon special terms) can have their Name and Address printed on the back of the boxes, *free of charge*, in addition to the ordinary directions. If translation is supplied, the printing can be done in any language.

HOT WEATHER DEFIED!

AVOID LOSS! AVOID ANNOYANCE! AVOID WASTE!

Order one of SHIRLEY'S 25/- Parcels of A1 Brand Menthol, and thus secure a Dummy Cone, measuring 12 inches high, with the various uses of Menthol clearly printed on it. This can be shown in the window in place of the cones themselves, which, owing to their volatile nature, are so likely to spoil and waste if exposed to the rays of the sun. The parcels are so assorted as to meet every class of trade :—

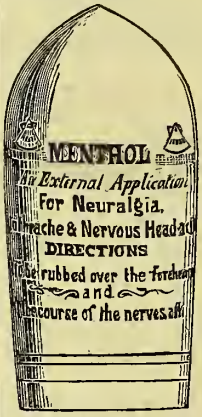
PARCEL A.	PARCEL B.	*Each Parcel contains only the most saleable shapes. Order as Parcel A, B, C, or D.*	PARCEL C.	PARCEL D.
4 dozen 6d.	3 dozen 1/-		8 dozen 6d.	4 dozen 1/-
2 „ 1/-	2 „ 6d.			

25/- worth of A1 BRAND MENTHOL realises 48/-, being a profit of 23/-, which is over 90 per cent.

No.		Doz.
1.	6d. Glass Bottles, with Metal Screw Cap	3/3
1B.	6d. Blue „ „ „	3/4
2.	6d. Willow Wood..	3/-
2B.	6d. „ „ Barrel Shape ..	3/3
3.	9d. Glass Bottles, with Metal Screw Cap	5/-
5.	1/ „ „ „	6/3
8.	9d. or 1/ Boxwood, Acorn Shape ..	6/-
9A.	1/6 „ Skittle Shape ..	7/6

No.		Doz.
10.	6d. Oblong Willow Cases, 12 on a card	3/6
13A.	1/ Vegetable Ivory, Acorn Shape ..	6/3
15.	6d. Cardboard Cases	3/-
17.	1/ Ebony Draughtsman	6/9
17.	1/ Vegetable Ivory Draughtsman ..	7/-
19.	6d. Boxwood Pocket Menthol, Egg Shape, 12 on a Card	3/-
20.	1/ Smelling Bottle Menthol Cone, Mounted on Stopper	7/6

N.B.—The printed cases look worth double the money. Order a dozen as sample, and you will never buy anything else. Large buyers can have a sample sent free per post on application, together with prices and full particulars as to special printing.



No. 9c.
1/6 or 2/, Boxwood, Skittle Shape, very large,
9/6 per doz.

NOTICE.

To meet the wants of those with whom *cheapness* is the first consideration, attention is called to a special line, put up in willow boxes. The boxes do not bear the Trade Mark A1 on the label, as the Menthol used in their manufacture, while being pure, is not of as high a standard of quality as the A1. Price 16/- per gross in quantities of not less than 6 dozen.

SPECIAL PRICES TO SHIPPERS AND LARGE BUYERS.

QUOTATIONS SOLICITED.

In indenting order as SHIRLEY'S A1 Brand.

DO NOT THROW AWAY THE CHANCE OFFERED OF OBTAINING A DUMMY CONE FREE OF CHARGE.

All Shapes to be obtained through your Wholesale House or Merchant, only order distinctly as SHIRLEY'S A1 BRAND.

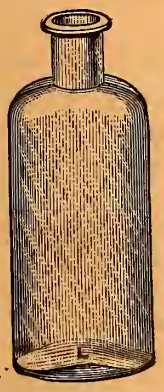
ALSO OF THE SOLE MANUFACTURER—

ARTHUR W. SHIRLEY (LATE J. G. Shirley), **30 Paternoster Square, London, E.C.**

TRADE MARK.

DISPENSING BOTTLES

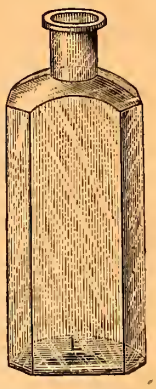
PRIZE MEDAL, SYDNEY, 1879.



QUININE TINTED.

"L" BRAND.

Warranted Finest Quality Metal, Good Mouths, and Correct Measure.



CATALOGUE No. 42a. In any quantity from Stock.

FLATS OR OVALS.

Size ...	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross	9/-	9/6	10/-	10/6	10/6	11/6	11/6	16/-	17/-	21/-	25/-	27/6	36/-	40/-

Discount : 10 per cent. Monthly, 5 per cent. Half-yearly.

ALSO

IN ORIGINAL PACKAGES DIRECT FROM WORKS.

Carriage paid to Bristol, Glasgow, Liverpool, or London.

"L" BRAND. CATALOGUE No. 42a.

Size ...	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross	7/6	8/-	8/-	8/6	8/6	9/6	9/6	12/6	13/6	16/6	20/-	22/-	29/-	33/-

BEST GREEN FLINT FLATS OR OVALS.

CATALOGUE No. 42.

Size ...	½ oz.	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross	6/-	6/-	6/-	6/-	6/8	6/8	7/9	7/9	10/6	11/6	15/-	19/-	22/-	27/6	32/-

Strictly Net Cash

CASKS OR CRATES EXTRA.

LYNCH & CO.,

ALDERSGATE ST., LONDON, E.C.;

AND

48 QUEEN STREET, MELBOURNE.

THE ONLY TASTELESS APERIENT.

HUNGARIAN NATURAL MINERAL WATER.



The Salts of ÆSCULAP contain 90 per cent. of purgatives.

HIGHEST AWARD
AT THE
International Medical Exhibition,
LONDON, 1881.

SAMPLE BOTTLE MAY BE HAD FROM THE COMPANY'S OFFICE.

The ÆSCULAP BITTER WATER COMPANY, Ltd., 38 Snow Hill, London, E C., & Buda Pesth.

Wholesale Agents: **INGRAM & ROYLE,** *London, Liverpool, and Bristol.* [2]

CADBURY'S COCOA ESSENCE

The medical profession order Cadbury's Cocoa Essence in thousands of cases, as the most wholesome beverage. Be sure you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is just what it is declared to be by Messrs. Cadbury Brothers."—*Lancet.*

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal.*

GUARANTEED PURE AND SOLUBLE.

WRIGHT

WHOLESALE & EXPORT DRUGGISTS,
DRUG GRINDERS,

IMPORTERS AND DISTILLERS OF ESSENTIAL OILS,

ALMOND OIL PRESSERS.

MAKERS OF

Granular Effervescing Salts. Citrate Iron and Quinine. Ammonia Citrate Iron.

PEPSIN. EXPRESSED JUICES.

Umney's Fluid Extract Cinchona Bark. Essential Oil Almonds, Freed from Prussic Acid.

LAYMAN

Green Extracts. Fluid Extracts. Preparations of British Pharmacopœia, 1885.

MANUFACTURING PHARMACEUTICAL CHEMISTS.

TEREBENE. & NORWEGIAN COD LIVER OIL, Finest Non-Congealing (Season 1887).

TINCTURES—ETHER and CHLOROFORM in Bond.

PRICES CURRENT ON APPLICATION.

FOREIGN TELEGRAMS—"UMNEY LONDON."
INLAND TELEGRAMS—"UMNEY LONDON."
SOUTHWARK, LONDON.

UMNEY.

Printed by SPOTTISWOODE & Co., New-street Square; and Published at the Office, 42 Cannon Street, in the City of London.—*June* 4, 1887.

A copy of this Supplement is inserted in every number issued of "THE CHEMIST AND DRUGGIST."

THE CHEMIST AND DRUGGIST.

EXTRA SUPPLEMENT TO

BUSINESSES WANTED.
BUSINESSES FOR SALE.
PREMISES TO LET.

PARTNERSHIPS.
SITUATIONS WANTED.
SITUATIONS VACANT.

AUCTION SALES

EXCHANGE COLUMN

Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until **5 p.m.** on **Thursday afternoon,** or by **first post** on **Friday morning** of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

The Terms for Advertisements in this Supplement will be found printed under each heading.

Further Proof of the Value of "THE CHEMIST AND DRUGGIST" as an Advertising Medium.

"It is only right I should at once become a subscriber to your Paper, as I got my first and only situation as Assistant, and also this business, through seeing advertisements therein."

177/34.

OFFICE: 42 CANNON STREET, LONDON, E.C.

SATURDAY, JUNE 4, 1887.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.,

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

Particulars of any of the following will be sent free on application:—

1.—**LONDON, W.C.**—In a busy locality, an old-established Business; managed by an assistant; handsomely fitted shop, and good stock; returns £700 yearly; price about £650.

2.—**LONDON, S.**—Retail and Dispensing Business, with handsome corner shop; returns £800 yearly; *net profits* above the average; good house; price about £750.

3.—**LONDON, S.W.**—Suburban Business; well situated; select Dispensing and Retail; returns nearly £700; very good house, with garden and conservatory; price about £650.

4.—**LONDON.**—Retail, Dispensing, and Prescribing Business; all *ready money;* returns £850; *profits large;* well-fitted shop and good stock; price £700; very busy locality.

5.—**LIVERPOOL.**—Dispensing and Retail Business, situate in a first-rate business locality; returns about £1,700 yearly; *net profits* nearly 25 per cent.; commodious shop and first-rate stock; about £1,500 required, part by instalments if wished.

6.—**WEST OF ENGLAND.**—Death vacancy; good-sized town; Retail and Dispensing; present returns £350, can be largely increased; number of chemists below the average; valuation only required, no premium for goodwill.

7.—**WEST OF ENGLAND (Seaport)**—Branch Business for disposal; returns £500 yearly; very nice shop; valuation required, with small premium.

8.—**SURREY.**—Large town; Prescribing and General Retail; returns £500 yearly; *large profits*; well-fitted shop and convenient house; price about £500.

9.—**INLAND WATERING PLACE.**—First class Retail and Dispensing, with some Dental return; returns £850; handsome shop and good stock; *the profits* amount to £350 net; price £820.

10.—**UNIVERSITY TOWN.**—Good-class Business; returns £850; rapidly increasing; capital position and good house; a gentleman with knowledge of Homœopathic business would find this a specially good investment; about £700 required.

11.—**CORNWALL.**—Unopposed Retail and Prescribing; returns £600; good position, with good house and garden; rent very low; very pleasant climate; price about £200 only.

12.—**PARTNERSHIP.**—With succession if wished; Wholesale and Retail; situate in a good county town; about £1,800 is required, for which an *adequate profit* is offered; full investigation; references will be required as preliminary.

13.—**AGRICULTURAL DISTRICT (NEAR LONDON).**—Mixed Business, with *large profits*; not under £650 yearly; about £2,000 required.

WANTED.

WANTED.—*PARTNERSHIPS OR FIRST-CLASS DISPENSING BUSINESSES, EITHER IN LONDON OR GOOD PROVINCIAL TOWNS—PROFITS NOT UNDER £500 YEARLY.—CASH READY.*

N.B.—NO CHARGE TO PURCHASERS. Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

41

The British and Colonial Agency, Limited.

Chemists' Businesses, Partnerships, Openings, &c., London or Country, negotiated. Locum Tenens and Assistants supplied. Valuations, Investigations, &c., undertaken. Outstanding Accounts Collected.

PROSPECTUS FREE ON APPLICATION.

Address, The SECRETARY, 27 Margaret Street, Cavendish Square, London, W.

BONA-FIDE BUSINESSES WANTED.

CHEMIST'S BUSINESS FOR DISPOSAL.—(No. 1,111.) –There is an excellent opportunity for a qualified pharmacist to acquire a business; it has hitherto been conducted by a non-registered man, in a town within 40 miles from London; the cash receipts are about £200 per annum, and could be easily increased to £600. Also 1,102.—Notts; returns about £450; price £220. Also 1,103.—Wales; Partnership; returns about £1,500; price for half share £650. Address, the British and Colonial Agency, Limited, Pharmaceutical Department, 27 Margaret Street, Cavendish Square, London, W. Genuine Businesses wanted.

Assistants and Locum Tenens required for the coming season.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

BUXTON.—To Let, a very old-established Chemist's Shop, with Dwelling-House, No. 5 The Quadrant, Buxton; has a business and connection; established 40 years; good Prescribing and General Business; immediate possession may be had. Apply to B. W. Bentley, 6 Quadrant, Buxton.

TO LET, with immediate possession, a convenient Shop, Warehouse, good Dwelling-House and Garden; the business of a Chemist and Druggist has been successfully carried on for over 30 years by the owner; the premises are well adapted for a good Grocery and Provision Stores. For further particulars apply, 233/22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NORTHAMPTONSHIRE.—To be Let, a Chemist's Shop (in present hands 13 years); large plate-glass window; good house and garden; on main road; populous neighbourhood, rapidly increasing; low rent; feeble opposition; part or whole of stock and fixtures at valuation; no agents; advertiser leaving through ill-health. Address, C., care of Mr. Coles, Frederick House, Dogthorpe Road, Peterborough.

BUSINESSES FOR DISPOSAL.

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AT THE SEASIDE.—A genuine old-established Chemist and Druggist's Business; price for stock, fixtures, &c., £450; open to an offer; house on lease at low rental, or freehold will be sold. Further particulars of Mr. Wm. Sayer, Solicitor, Great Yarmouth.

£225 or offer, for a Business ten miles from London; pleasant neighbourhood; long garden; on lease; good opening for Dentistry; returns £250, can be increased. "Physic," Herrings & Co., 40 Aldersgate Street, London. No agents.

TO CHEMISTS AND DRUGGISTS.—For immediate disposal, through death of proprietor, a Mixed Country Business; situate in the best position of the town of Lampeter, South Wales; stock full; fittings new; good market town; valuation only required; low rent. For full particulars apply to Mr. Thomas Lloyd, Lampeter.

IMMEDIATELY.—A ready-money Retail and Prescribing Business in large and rapidly increasing neighbourhood; returns over £400, and increasing; have doubled in 2 years, and would again under efficient management; splendid opportunity for a beginner; lowest cash price £250; long lease; low rental. Apply, W. H., 67 Stratford Road, Plaistow, E.

HOME COUNTY.—First-class old-established Retail and Dispensing Business, held by proprietor 40 years; returns £1,000, at full prices; price £850; position is the best in the town; shop large, and handsomely fitted; good residence. Address, E. G., care of Messrs. Maw, Son & Thompson, 11 Aldersgate Street, E.C.

£350, OR OFFER.—A very profitable ready-money Business, in the suburbs, yielding a net profit of about £200; returns about £400, and increasing; lock-up shop; rent £25 on long lease; single man, with knowledge of Dentistry, could save £200 a year. "Alpha," care of Thos. Hawkins, Esq., 32 Ludgate Hill, E.C.

FOR DISPOSAL, an old-established Light Retail Dispensing and Prescribing Business; been in present occupier's hands 19 years; good corner position, in largely populated neighbourhood and leading thoroughfare; no reasonable offer refused for this genuine business; proprietress retiring. For further particulars apply to Mrs. Ellis, Chemist, 34 Paddington, Liverpool.

SURREY.—An old-established Good-class Retail; returning £1,000, has done £2,000; for sale through death of owner; to sell at once, £550 (£150 can remain); chance rarely offering. KENT COAST.—Well-fitted Retail, returning £900; rent £40; net profit £400; for £700; strictest investigation courted. Messrs. Berdoe, 30 Jewry Street, Aldgate.

FOR IMMEDIATE DISPOSAL, a genuine Dispensing, Prescribing, and Light Retail Business; returns £550; in main thoroughfare; modern fittings; 6-roomed house, kitchen, &c., in good repair, private entrance; part would let; opening for Dentistry; price £500; good prices, and ample scope for increasing. M., 2 Poland Street, London, W.

TO SMALL CAPITALISTS.—An old-established Business, Mixed Retail, in working-class and manufacturing district of large Midland town, where Agricultural and Wholesale has been carried to £2,000 a year in deceased owner's time; Retail only now returns £12 week by assistant; stock and fixtures about £400, the whole of which can remain on good security, paying off £50 per annum by instalments; a steady respectable man would find this an exceptional chance. F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

PARTNERSHIP.—Chemist (medical man), having large cash prescribing practice, established 30 years, densely populated suburb of large town, Yorks, desires to meet with energetic Partner to work retail and valuable patent; must be a Liberal. Address, in confidence, "Medicus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

TO DENTISTS.—In a High-class, not advertising, Dental Practice a vacancy offers for a suitable gentleman as Partner; incoming about £600; situation and surroundings unique; advertiser doubly qualified, and holds good Hospital appointment; fashionable suburb of large city. Address, L. D. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

APPRENTICESHIP.

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TO PARENTS AND GUARDIANS.—Mr. Keeling, Beulah Road, Walthamstow, Chemist and Student of Medicine, requires an outdoor Apprentice for three years; premium £25; hours short; duties light; a gentleman wishing to enter the Medical Profession, and desirous of obtaining a good personal knowledge of drugs, pharmacy, prescribing, &c., before commencing his hospital curriculum, will find this an opportunity seldom presented.

EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, Improver or Junior; steady and obliging. State age, reference, salary required, &c., to W. A. Shepherd, Ripley, near Derby.

WANTED immediately, an outdoor Junior Assistant. State terms and when disengaged, together with reference from last situation, to Jesse Williams & Co., Chemists, Queen Street, Cardiff.

JUNIOR wanted, for quiet Seaside Business; indoors; hours 8.30 A.M. to 9 P.M.; duties light; must be good Prescriber. Address, stating salary required and full particulars, to Mr. Walden, Chemist and Dentist, Gorey, Jersey.

WANTED, a Junior Assistant for Light Retail and Dispensing Business; three hours per day for study as part salary if required. Apply, stating age, height, salary, and all particulars, to Arthur J. Taylor, 29 King's Road, St. Leonards-on-Sea.

TOBACCO ANALYSIS.—The Proprietors of a Tobacco Manufactory require at once the services of a competent Analytical Chemist. State age, salary required, references, and full particulars to "Tobacco," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS ASSISTANT.—An energetic and good Salesman for a Country Business; one of decided Christian principles preferred; highest references indispensable; also Minor qualification preferred. Apply, S. C. Furmston, Pharmaceutical Chemist, Wycombe, Bucks.

ASSISTANT, pleasant manners, aged about 23 years, for Light Retail, Dispensing, and Prescribing; qualified and accustomed to Dental operations preferred; state references, salary required, height, and enclose photo. W. Searle Parrott, High Street and Queen's Road, Watford.

IMMEDIATELY.—Assistant, accustomed to good country business; one only kept. Apply, with full particulars (enclosing carte), to Smart, Pharmaceutical Chemist, High Street, Steyning. Letters not answered in four days declined.

WANTED, for partial weekly employment, an experienced Pill-maker, accustomed to Gelatine Coating; liberal wages given; with a view to permanent employment. Address, by letter first, to A. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED ASSISTANT, about 25, accustomed to first-class business; partnership on easy terms, after a few months, would be entertained with a suitable man. State age, height, qualification, full particulars of experience, and salary required, and enclose carte (which shall be returned), to H., 90 Western Road, Brighton.

WANTED, a Qualified Assistant, to take a leading part in a Retail Drug Business, north of the Tweed; he must be thoroughly accustomed to the requirements of the Retail trade, and be acquainted with the making of some Pharmaceutical Preparations, such as "Cod Liver Oil Emulsion," &c. Apply (personally preferred), with full particulars as to salary, previous experience, &c., to "C.," care of Wright, Layman & Umney, Southwark, London.

ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

WHOLESALE, Dry, Wet, or Patent Medicine room; retail formerly. "Park," Winterton, Doncaster.

JUNIOR; 5 years' experience; aged 21; height 5 feet 9 inches. Elliott, Wass, Oswaldkirk, York.

ASSISTANT; unqualified; experienced; aged 32; married. R. Watson, Blythe Road, London, W.

ASSISTANT; in 22nd year; height 5 ft. 7 in.; 5½ years' South Coast experience. W. Palmer, 77 High Street, Sheerness-on-Sea.

AS MANAGER to Wholesale Packing Firm; can introduce full line of American Novelties; aged 30; 15 years' experience. "Manager," 2 Queen's Road, N.W.

IMPROVER; where others are kept; indoors; three months given; aged 19; experience, 2 years 7 months. P., Elm Villa, Falkner Street, Gloucester.

AS MANAGER of Branch; married; good Prescriber and Teeth Extractor; good references; abstainer. Apply, "Beta," 16 West Street, Brighton.

DRUGGISTS, Wholesale.—Situation required with above as Clerk; knows Chemical markets thoroughly; several years with present employers, Manufacturing Chemists; town. H., Stock's Library, Upton, E.

TRAVELLER.—Chemists.—An energetic gentleman, working South, West, part of Midlands, and South Wales, wishes to meet with an established firm to share expenses with present house; samples light, to cover ground quickly; high references. H. J. A., Fairlight Villa, Kingston-on-Thames.

TRAVELLER.—Advertiser is open to an immediate engagement to represent, on part salary and part expenses, a *bonâ-fide* London house doing with Chemists, Wholesale Druggists, and Manufacturing Confectioners; is now travelling, and has taken the United Kingdom without a break for over 20 years; has a connection second to none, and knows every article in the trade. B. B., 1 Railway Approach, London Bridge, S.E.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

AGENTS wanted for "Dr. Birley's Anti-Catarrh" and "Baby's Blessing"; exceptionally favourable terms to special agents. Write to-day for particulars to E. Birley & Co., 1 Cecil Street, Strand, London, W.C.

TRIPOLI of all kinds, Tooth-powder, Metal and Silver Polishing-paste, Red and Burnt Magnesite, Emery-powder, Graphite, Talc, Red Polish, Polishing Chalk, Spath—all kinds, Ochre, Hearthstone, Knife Emery, French Bolus, Trade Magnesia, Pumice-stone Powder. Address, Bruck's Bergbau and Fabrik Comptoir, Berlin, S.O.

TO DRUGGISTS' TRAVELLERS.—The advertiser is open to receive offers to Sell on Commission only several articles well known in the trade. Reply, stating commission expected, to "Sigma," 685, care of Deacon's, 150 Leadenhall Street.

A VALUABLE SPECIAL AGENCY.

DR. BIRLEY'S PREPARATIONS.—Large and Ready Sales.—48 page Pamphlets, gold covers, show-cards, &c, free; write to-day for samples. Gordon Murray & Co., 17 Castle Street, Holborn, London. Sole agents for Great Britain and India. "Baby's Blessing" and "Anti-Catarrh" may also be had.

PRELIMINARY AND MINOR.

ALL STUDENTS who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 32 Pupils passed the last Examinations.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1*s*. How to Write an Essay, 3*d*. Cæsar Simplified, 1*s*. Knotty Points in Latin Grammar, 1*s*. 6*d*. MINOR.—Equations Simplified 1*s*. Illegible Autographic Prescriptions, 1*s*. Notes on Dispensing, 1*s*. Prescriptions given at the Minor, 6*d*. "Chemist," care of Mr. J. Edwards, Wye, Kent.

DENTISTRY.—First-class Mechanical Work, at moderate charges; attendance given in special cases. Address, A. L., 5 Sackville Street, London, W.

DENTISTRY.—Mr. J. W. MARTIN, Manufacturing Dentist to the Profession, 46 Beckenham Road, Penge.—Best material and workmanship guaranteed; terms on application. Instruction given in all branches of surgical and mechanical dentistry; registered gentlemen, who have not had the advantage of a good dental education, are rapidly passed through a full course of instruction, which will enable them to practise dentistry in all its branches, for a fixed and inclusive fee.

Estab. 1875. **OTTO WOLTERS,** Estab. 1875.

MANUFACTURER OF

ANALYTICAL, VACUUM, AND BULLION BALANCES.

Wolters' Improved Short-Beamed Analytical Balance,

A SPECIALITY. Assay and other Weights of every Description Made to Order. Balances for Exportation.

55 Up. Marylebone Street, Portland Place, London, W.

CHEMISTS & DRUGGISTS' TRADE ASSOCIATION
OF GREAT BRITAIN.

NOTICE IS HEREBY GIVEN, that a SPECIAL GENERAL MEETING of the Members of the Association will be held at the INNS OF COURT HOTEL, LINCOLN'S INN FIELDS LONDON, W.C., on FRIDAY, the 17th of JUNE next, to consider the expediency of winding up the Association.

Formal notice will be given to each Member in due course.

By order of the Executive Committee,

W. F. HAYDON, Secretary.

Office of the Association, Birmingham, May 31, 1887.

EXCHANGE COLUMN.

Limited to the Advertisement of Surplus Stock, Formulæ, Addresses Wanted, and Articles Wanted.

TERMS.

No Advertisement inserted in this section for less than Sixpence.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of ½d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate: or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as *e.g.*, £1 10*s*. 6*d*.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6*d*. on any transaction of £3 or less, or 1*s*. if above that amount.

Remittances payable to EDWARD HALSE.

FOR DISPOSAL.

Drugs and Chemicals.

3 lbs. bismuth. subnit., 6*s*. 6*d*. lb.; 1 lb. pulv. ipecac., 6*s*. 6*d*. lb.; 3 lbs. gum benzoin, 1*s*. 3*d*. lb.; 2 lbs. oil mint, good, 11*s*. 6*d*. lb.; 1 lb. iodoform, 14*s*. lb. J. C., Lingdale-in-Cleveland.

Surplus Stock.—Jenner's liver mixture, Wesley's food, Fowle's chlorodyne lozenges, Fowle's antibilious pills. Wilkinson's embrocation, Fyson's eyesight-restorer, catheters, digestive powders, contra-septine, Sherman's sherry wine bitters. Holden's hand and foot powders. Holden's magic butter-powder. Feltwell's balsam aniseed, &c., Phillips' toothache stopping, Stedman's powders, soda-water rack. Lowe's toothache specific; all are clean and fresh. Prices on application to 26 West Street, Horsham.

Quantity of clean and fresh homœopathic tinctures, pilules, &c.; well-known make; 1*s*. and 6*d*. sizes. For list apply to "Surplus," Llanstephan, Carmarthen.

Elect. Turkey opium in original 14 lb. bags, as received from Barron, Harveys, Hearons, Hodgkinsons, 14*s*. 6*d*. per lb. Padwick, Redhill, Surrey.

Literature.

Odd back numbers of *Pharmaceutical Journal*; cheap. 233/5.

Naylor's "Skin Disease," 12*s*. 6*d*., for 6*s*.; "Family Physician." 1*l*., bound in morocco, cost 34*s*. "Chem.," 44 Maryleport Street, Bristol.

Old Attfield's "Chemistry," Minor notes in margin, 3*s*. 6*d*.; "B. P.." with additions, 3*s*.; Squire's "Companion," 12th edition, 3*s*. 6*d*.; 7th edition, 2*s*.; 10*s*. for the lot. Holloway, Leamington.

Books, all in good condition, some little used; about half their cost.—Attfield's "Chemistry," Muter's "Materia Medica," Taylor's "Medical Jurisprudence," Fergusson's "Practical Surgery," Thompson's "Lithotomy," Carpenter's "Human Physiology," Acton's "Prostitution," Acton's "Reproductive Organs," St. Bartholomew's Hospital Reports, Vol. X.; "Bergeau on Urinary Organs," Huxley's "Anatomy—Vertebrated Animals," Cobbold's "Entozoa," Hood's "Bone-Setting," Sanderson's "Handbook—Sphygmograph," "Jenner on Diphtheria," Beale's "Life-force," Price's "Scrofulous Glands," "Howe on Strictures," Hulk's "Ophthalmoscope," Hunter's "Venereal Diseases," Wiseman's "Chirurgical Treatise," 1686, Lawson's "Sciatica and Lumbago," Langley's "Via Medica," "Fothergill on Digitalis," Watson's "Medication Larynx," Bartlet's "Digestion," Gay's "Indolent Ulcers," Begg's "Localised Movements," Acland's "Harveian Oration." Ness, Chemist, Torquay.

Chemist and Druggist, unbound, 1877-8-9-80-1-2; also about 18 odd numbers, 18*s.*, or 3*s.* per year. William, 24 Phippen Street, Bristol.

Muter's "Chemistry Pharmacopœia," 1885; Ince's "Grammar"; Attfield's "Chemistry," ninth edition; Bentley's "Botany"; Cook's "Botany," perfect, good condition; offers? Bray, Leamington House, Cheltenham.

Educational.

Set of illegible autograph prescriptions (original) 2*s.* 6*d.*, as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2*s.*; 50 questions asked of successful students at last Minor, 1*s.* 1*d.*; new "Pharmacopœia," 5*s.*; lot of cheap, almost new, books; Attfield's "Chemistry," 1886, 12*s.*; Squire's "Companion," 1886, 8*s.* 6*d.*; carriage paid; stamp for list. Saunders, Medical Tutor, 6 Rochester Square, N W.

Shop Fittings.

44 drug drawers; 2*l.* 10*s.*; very cheap. 233/36.

The entire fittings of a chemist's shop (with the exception of the counters).—Spanish mahogany and plate-glass nests of 38 and 70 drawers, with buffalo-horn handles and glass labels; fittings of 8 and 12 shelves with silvered plate-glass pilasters, &c.; all of first-class manufacture; price £90; two 8-gallon carboys, 12*s.* each. Barnes, 54 Biggin Street, Dover.

Glass Bottles.—Job lines.—About 6 gross each 3-oz. opal and turquoise blue pomades, screw nickel-capped, 18*s.* per gross; 10 gross 4-oz. ditto, 20*s.*; 14 gross 2-oz. white flint pomades, screw nickel-capped, 13*s.*; 4 gross 4-oz. eau de Colognes, 10*s.*; 20 gross stoppered smelling salts, same shape as Godfrey's, 24*s.*; 10 gross each 1, 2, and 3-oz. turquoise covered pots, 16*s.*, 20*s.*, and 25*s.* per gross respectively; all *best quality*; sample of either kind post free 4 stamps, or of each line 18 stamps. Address, Hearn, 381-3 Kingsland Road, London.

Important to Chemists Fitting, &c.—Range mahogany-fronted drawers, 12 ft. long, with plate glass labels and crystal knobs, 10*l.*; range polished pine ditto, 12 ft. long, with glass labels, 8*l.* 5*s.*; handsome mahogany wall case, with mirror centre, 6 ft. long, 13*l.*; 4-ft. bent plate-glass case, 80*s.*; desk and case, 50*s.*; 24 4-lb. best pink shop jars, gilt and labelled, 5*s.* each; 15 doz. new gold labelled shop rounds and jars, 9*l.* 15*s.*; four 8-gallon carboys and stands, 20*s.* each; six 6-gallon ditto, ditto, 15*s.*; six 4-gallon ditto, 10*s.* each; a large variety of other fittings, &c., always in stock. Illustrated lists free. R. Tomlinson & Sons, Midland Medical Fitting Warehouse, Bond Street, Constitution Hill, Birmingham.

Formulæ.

Cheap relish, 8*d.* per gallon; recipe, 2*s.* 6*d.* 227/35.

Send for my list of recipes, cheap and reliable. "Chemist," Edwards, Wye.

For nothing.—Post free, Brook's new list, numbering 380 recipes; send 1*s.* for sample recipe. Brooks, Chemist, Louth.

Set 15 practical recipes, with full instructions for gonorrhœa, gleet, syphilis, bubo, and all forms of venereal disease, 3*s.* 6*d.*; glycerine, cucumber, and houseleek for the skin (time of year is coming on for stocking these plants), 2*s.* Wanted, one Southall's Norway boat; lowest figure to A. Johnson, 64 Furness Hill, Sheffield.

Extraordinary Offer! — For half-crown Postal Order or stamps, following recipes post free (as sample):— "Herbalade," a concentrated compound botanic extract (like Mason's), for making aromatic herb beer, at 4*d.* gallon, delicious, appetising, sparkling; "Tic Specific," infallible tincture, acts like magic, quicker than tonga; "Hop Tonic" (instanter), splendid preparation in every respect, costs under 1*s.* lb.; "Spring Blossom," most lovely and enchanting perfume (resembles Gosnell's), adapted for Jubilee or local name; detailed list free. T. Brooks, Chemist, Louth.

Soluble essences (non-alcoholic, for mineral waters); lime-juice cordial; chlorodyne (perfectly transparent); cascara sagrada cordial; concentrated waters (1 to 40); essence rennet (permanent, no salt); hop bitters; liquor carbonis (resembles Wright's); chemical liquors for syrups (stable); lac rosarum (inseparable, made in few minutes); ink (resembles "Dichroic"); elixir phosphori, invigorating tonic; sponges bleached (golden yellow); liquid dentifrice (like "Floriline"); marking-ink, *sine* silver, writing executed defies chemicals; saline (Eno's or Lamplough's); magic neuralgic drops; lime-juice and glycerine (white as milk, inseparable); pill-coating, pearly white, no mastic or mucilage; crimson marking-ink; hair-restorer, colourless, no deposit, *sine* silver; oleum flavum concentratum, stable colour for pomades; soluble ginger (like Hay's); liquor copaibæ comp. c. huchu et matico (like Richardson's); liquor santal. flav. (resembles Hewlett's); taraxicum podophyllin, iron quinine (both resemble Pepper's); many perfumes, also toilet requisites; state wants; lists issued; all inexpensive to prepare; 5*s.* each (5 for 1*l.*); analyses undertaken. Readers are warned against cheap substitutes. I was first to advertise formulæ in this journal. "Analyst," Mr. Warnes, 6 Rochester Square, N.W. (Only prepaid inquiries answered.)

200 reliable recipes for preparations in everyday use. The latest addition is "Lanoline Toilet Cream," a delightful preparation from the new material "Lanoline;" must find a ready and profitable sale with every chemist as a novelty. Single recipes, 1*s.* 1*d.* each; three for 2*s.* 6*d.* Complete list posted on receipt of address. 63/45.

Miscellaneous.

Water-bath with still combined, 3*s.* 6*d.*; stove for ditto, or any use, 2*s.* Holloway, Leamington.

Beeston Humber tandem tricycle; new; bargain. For particulars, address Osborne, chemist, Moss Side, Manchester.

Rubber stamp ink manufacturer's form, splendid six stamps, genuine. Francis, Chemist, Peckham.

5 signs, various sizes; quantity of drugs, sundries, &c.; very cheap; list sent. Griffin, Chemist, Birmingham.

Extraordinary!—Assorted lot of drugs, sundries, and patents for 1*l.*; worth double. Knight, Chemist, Portsmouth.

Minor Examination.—50 exam. (catchy); equations, accurately written and easily arranged for study. A. P. S., 13 Elgin Crescent, Notting Hill, London.

Judson's 4*l.* 4*s.* Leclanché battery; quite new; price 2*l.* 10*s.*; send on approval; carriage paid. Bridgwood, 33 Temple Row, Birmingham.

Cigar-case; six compartments; gold labelled tablet behind; bent glass case at top; similar to Maw's, A33; 50*s.* Lasham, Romford.

6 argand burners, Suggs', in good order; rack and opal shade complete; each light equal to 16 candles; exchange morphia or Howard's quinine, or offers. Brearey, Douglas.

WANTED.

Large Wedgwood mortar. 226/40.

One pound shares in the Chemists' Mineral Water Association; state price. 229/37.

Several oil-cisterns wanted, in good condition, with taps; about forty gallons. 231/38.

Immediately, mahogany window inclosure, 11 ft., shelving 19 ft, and counter. 233/15.

Set of gramme weights in box; 50 grammes to 1 milligramme. Pullin, Leamington.

Empty Apollinaris or similar bottles wanted. Apply by letter, with price, to Edisbury & Co., North Wales Factory, Wrexham.

Fourth edition, Richardson's Treatise on Mechanical Dentistry; cheap. Cockcroft, Dentist, Hebden Bridge.

Show carboy, ten gallons, cut stopper, send height; marble-top table, narrow, about 4 ft. long, mahogany. Ness, Chemist, Torquay.

Mahogany drug-fitting, 14 ft. lockers, drawers, shelving, and cornice complete. State price and condition to W. Farnsworth, South Normanton, Alfreton.

Address Wanted.

Address of J. E. Beesley & Co., late of 17 Redcross Street, London, S.E., Proprietors of Liebeg's iodized cod-liver oil.

EXCHANGE COLUMN FORMS

Can be had on application to the Publisher, at the Offices, 42 Cannon Street, London, E.C.

FEEDING BOTTLES.



SPECIAL PARCELS



UNSOLICITED TESTIMONIALS.

2 and 3 Orford Hill, Norwich, *May 25th*, 1887.

GENTLEMEN,—We have received the Guinea Case of Feeders and consider them first-class, and quite equal to any make at about double the price. We are also well satisfied with your Dispensing Bottles and Vials, which are cheap, good, and accurate. We wish you every success.

Yours faithfully,

JAMES ROBINSON & Co.

For the benefit of the trade you may publish the facts regarding your goods.—J. R. & Co.

1 Middleton Road, Dalston.

GENTLEMEN,—Please repeat my order for Nos. 3 and 5 Screw Stoppered Feeding Bottles. I am glad to inform you that they have sold better and given greater satisfaction both to the purchaser and myself than any feeders I have ever had during my quarter of a century's experience as a vendor, and I am of opinion that they take the first place in the market both for efficiency and lowness of price.

Yours truly,

B. J. WILKINSON.

We have a very large number of unsolicited Testimonials in addition to above, which may be inspected at our Offices at any time.

E. A. HEARN & CO.

Beg to inform the Trade that in consequence of the Great Demand for their

NEW IMPROVED PATENT FEEDERS

And the pleasing Testimonials received daily from many *well-known Firms* who have bought these Goods, they have determined to send out a limited number of

ONE GUINEA ASSORTED PARCELS,

EACH CONTAINING AS UNDER:—

One dozen of their No. 1 Green Glass, White Fittings.
***Three ,, ,, No. 3 White ,, Black ,,**
***One ,, ,, No. 5 ,, ,, ,, ,,**

* *These are fitted with our "Improved Patent Glass Screw Stoppers."* (Extra Quality, in handsome Cardboard Boxes.)

E. A. H. & Co. have decided upon doing this in order that all the Trade who have not already given them a trial may see for themselves the EXCELLENT VALUE of their Goods.

If in any case a Parcel should not give the purchaser ENTIRE SATISFACTION, the Goods may be returned and the money will be refunded in full.

If preferred, the cash may be placed in the hands of any of the London Wholesale Houses, who may be instructed to remit to us only upon the Goods being APPROVED OF.

CHEMISTS and others dealing in this line of goods CAN, and WILL, greatly increase their trade by selling these well-known Bottles, as they are acknowledged by all who have tried them to be the MOST SALEABLE and THE BEST VALUE in the Market.

Cash must in all cases accompany orders for these Special Parcels, either direct to us or to a London Wholesale House, as stated above.

We guarantee these Goods to be of FIRST-CLASS QUALITY only. WE INTEND TO MAINTAIN OUR REPUTATION FOR VERY BEST GOODS, and will not send out inferior qualities.

GIVE US A TRIAL, and your future Trade will be secured.

E. A. HEARN & CO., *Manufacturers of Glass Bottles of every Description,* 381-3 KINGSLAND RD., LONDON, E.

N.B.—If at any time orders for our Goods should be sent through any of the Wholesale Druggists or Drug Sundry Houses, please be particular in **DISTINCTLY STATING** that the make of E. A. HEARN & Co. is required, or otherwise disappointment will ensue.